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Index—California and Western Medicine, Volume 47 July to December, 1937

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Key to Abbreviations in This Index

Or.—Original Article.
C. R.—Case Report.
B. M.—Bedside Medicine.
Ed.—Editorial.
E. C.—Editorial Comment.
C. N.—Clinical Notes.
L. M. H.—Lure of Medical History.

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California Medical Association, Pasadena (date to be announced)

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Butte County Medical Society
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Secretary, J. O. Chiapella, 131 Broadway, Chico.
Meeting, *Second Thursday.*

Contra Costa County Medical Society
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Secretary, Thomas J. Dozier, 202 G Street, Antioch.
Meeting, *Second Tuesday, 8 p. m.*

Fresno County Medical Society
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Meeting, *First Tuesday, University-Sequoia Club, Fresno.*

Humboldt County Medical Society
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Imperial County Medical Society
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Secretary, Merritt C. Canfield, 204 Professional Building, El Centro.
Meeting, *Third Tuesday, 7 p. m., Barbara Worth Hotel, El Centro.*

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Kings County Medical Society
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Los Angeles County Medical Association
1925 Wilshire Boulevard, Los Angeles
President, John P. Nuttall, 203 Professional Building, Santa Monica.
Secretary, George D. Maner, 1925 Wilshire Boulevard, Los Angeles.
Meetings, *First and Third Thursdays, 1925 Wilshire Boulevard, Los Angeles.*

Marin County Medical Society
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Meeting, *On Call.*

Merced County Medical Society
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Secretary, M. M. Booth, Bruck Building, St. Helena.
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Orange County Medical Society
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Placer County Medical Society
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Riverside County Medical Society
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Secretary, Thomas A. Card, 3616 Main Street, Riverside.
Meeting, *Second Monday, 8 p. m., Library, Riverside Community Hospital.*

Sacramento Society for Medical Improvement
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Secretary, Glenn E. Millar, 321 Physicians Building, Sacramento.
Meeting, *Third Tuesday, 8:30 p. m., Auditorium, Sacramento.*

San Benito County Medical Society
President, L. C. Hull, Hollister.
Secretary, L. E. Smith, Hollister.
Meeting, *At Call of President.*

San Bernardino County Medical Society
President, D. C. Mock, 215 Cajon Street, Redlands.
Secretary, A. E. Varden, Medico-Dental Building, San Bernardino.
Meeting, *First Tuesday, 8 p. m., San Bernardino County Charity Hospital.*

San Diego County Medical Society
Fourteenth Floor, Medico-Dental Building, 233 A Street, San Diego
President, S. J. McClendon, 2001 Fourth Street, San Diego.
Secretary, W. H. Newman, Medico-Dental Building, San Diego.
Meeting, *Second Tuesday, El Cortez Hotel.*

San Francisco County Medical Society
2180 Washington Street, San Francisco
President, T. Henshaw Kelly, 490 Post Street, San Francisco.
Secretary, Stanley H. Mentzer, 2180 Washington Street, San Francisco.
Meetings, *Every Tuesday, 8:15 p. m., 2180 Washington Street, San Francisco.*

San Joaquin County Medical Society
President, John S. Blinn, 1101 Medico-Dental Building, Stockton.
Secretary, George H. Rohrbacher, Medico-Dental Building, Stockton.
Meeting, *First Thursday, 8:15 p. m., Medico-Dental Club Rooms, Stockton.*

San Luis Obispo County Medical Society
President, Charles R. Kennedy, Bank of America Building, Paso Robles.
Secretary, E. D. Anderson, 1120 Morro Street, San Luis Obispo.
Meeting, *Third Saturday, 6:30 p. m., Mulholland's Grill, San Luis Obispo.*

(Roster lists continued on advertising page 6)

San Mateo County Medical Society
President, Frank S. Gregory, 736 Main Street, Redwood City.
Secretary, J. Garwood Bridgman, 205 Third Avenue, San Mateo.
Meeting, *Fourth Wednesday, Benjamin Franklin Hotel, San Mateo.*

Santa Barbara County Medical Society
President, Irving Wills, 1421 State Building, Santa Barbara.
Secretary, William H. Eaton, 822 De la Guerra Terrace, Santa Barbara.
Meeting, *Second Monday, Cottage Hospital.*

Santa Clara County Medical Society
President, R. Stanley Kneeshaw, 404 Medico-Dental Building, San Jose.
Secretary, Leslie B. Magoon, Medico-Dental Building, San Jose.
Meeting, *Third Wednesday, 8 p. m., Medico-Dental Building, San Jose.*

Santa Cruz County Medical Society
President, A. N. Nittler, 36½ Pacific Avenue, Santa Cruz.
Secretary, Samuel B. Randall, Farmers and Merchants Bank Building, Santa Cruz.
Meeting, *Second Tuesday, 7:30 p. m., Hotel Rio del Mar, Aptos.*

Shasta County Medical Society
President, Oscar J. Hansen, 318 Yuba Street, Redding.
Secretary, Leslie J. Seeley, 1432 York Street, Redding.
Meeting, *Second Monday.*

Siskiyou County Medical Society
President, E. F. Carlson, Fort Jones.
Secretary, J. B. McGuire, Mt. Shasta City.
Meeting, *Second Sunday.*

Solano County Medical Society
President, H. Brownlie Perkins, 445 Georgia Street, Vallejo.
Secretary, John W. Green, Box 539, Vallejo.
Meeting, *Second Tuesday, 8 p. m., Casa de Vallejo Hotel, Vallejo.*

Sonoma County Medical Society
President, C. B. Andrews, Sonoma.
Secretary, C. M. Carlson, 1055 Fourth Street, Santa Rosa.
Meeting, *Second Thursday.*

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President, Marion C. Collins, Turlock.
Secretary, Edwin F. Hagedorn, Box 834, Modesto.
Meeting, *Second Friday.*

Tehama County Medical Society
President, Donald E. Thompson, Red Bluff.
Secretary, F. J. Bailey, Red Bluff.
Meeting, *At Call of President.*

Tulare County Medical Society
President, J. C. McClure, Lindsay.
Secretary, Karl F. Weiss, Security First National Bank Building, Visalia.
Meeting, *Sunday Evening once a month.*

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President, F. R. Hendricks, 885 East Main Street, Ventura.
Secretary, A. A. Morrison, 625 Main Street, Santa Paula.
Meeting, *Second Tuesday, Ventura County Country Club.*

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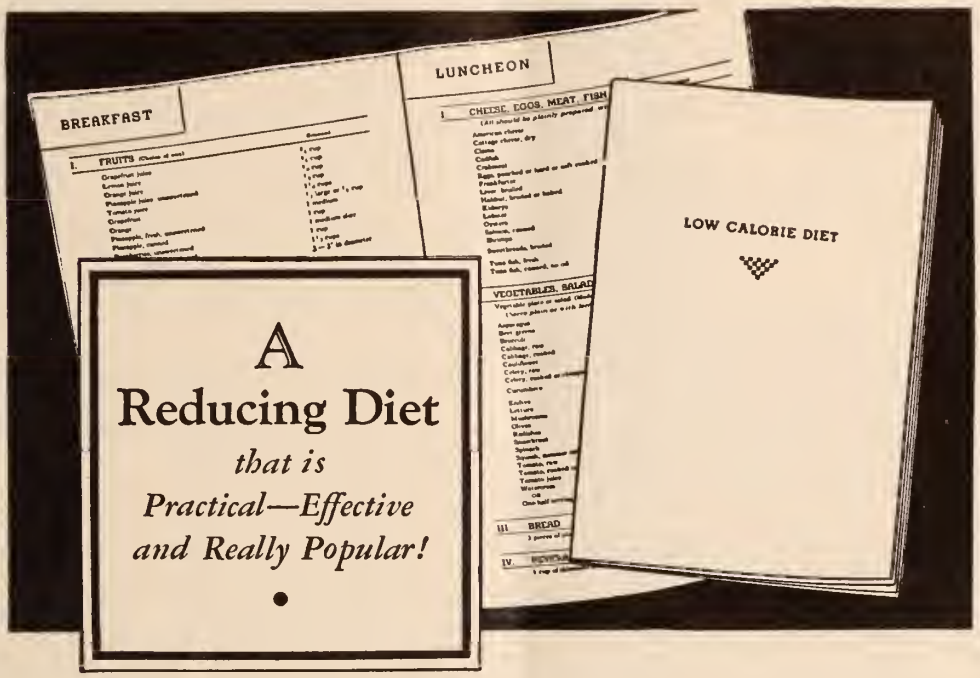

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Evidence: Credibility of Professional Expert Witness.—The plaintiffs, husband and wife, instituted suit against the defendant for damages, alleging that the defendant's agent, July 17, 1932, negligently caused a screen door to strike the wife violently on her abdomen and that this blow caused three miscarriages, one on September 11, 1932, the second on February 19, 1933, and a third on June 30, 1935. The trial court gave judgment for the plaintiffs, and the defendant appealed to the Supreme Court of Pennsylvania.

The wife's physician, testifying as her witness, stated that no one can tell with any degree of certainty what causes successive abortions such as the wife suffered. He was unable to specify the cause in this case. Another physician, who attended the wife at the hospital following her last abortion and who operated on her, was not called as a witness by the plaintiffs but was placed on the stand under subpoena by the defendant. He stated that the wife's condition when he attended her was not caused by the injury three years previous thereto, and that in his opinion the abortion was brought on by an attack of "la grippe." In order to supply the deficiency in their proof as to the cause of the abortions, the plaintiffs called a "professional expert witness, who had been testifying in the courts of Allegheny County as an expert for thirty years." This witness had not attended the wife at any of the miscarriages and had not seen the hospital records. He testified, however, that in his opinion the successive abortions were due to the striking of the wife by the screen door. Concerning this witness, the Supreme Court of Pennsylvania quoted as follows from *Murphy* vs. *Pennsylvania* R. R. Co., 292 Pa. 213, 140 A. 867:

"The professional expert, whose testimony we relate above, frequently appeared in court as a witness in personal injury cases, and the inference from his evidence is that he made the giving of testimony in such actions a business. One of the evils in the trial of personal injury cases is padding the claim with evidence of the professional medical expert. When considering a motion for a new trial, based on an excessive verdict, ordinarily but little weight should be given to such testimony."

After examining the evidence in the case, the Supreme Court was convinced that the verdict was excessive and that a new trial should have been granted, not alone because of the excessiveness of the verdict but because of the unsatisfying state of the evidence. (*Nickolls* vs. *Personal Finance* Co. (Pa.), 185 A. 286.)—*Journal A. M. A.*

Basic Science Act: Referendum Measure Improperly Submitted to Voters.—The Arizona legislature in 1933 enacted a law providing that all applicants for licenses to practice the healing art must, before being permitted to take examinations to test their fitness to practice, demonstrate their proficiency in the sciences of anatomy, physiology, pathology, chemistry, bacteriology, and hygiene by passing an examination conducted by a nonsectarian, impartial board of examiners. Thereafter a referendum petition on this law was filed in the office of the Secretary of State. The Arizona constitution provides that referendum measures shall be submitted to the voters at the "next regular general election" following the filing of the petition. A vacancy having occurred in the office of Representative of Arizona to the Congress, the governor of the state called a special election to fill the vacancy. It was at this election that the referendum measure was submitted and approved by the people.

In the present proceedings, one St. Louis Estes was convicted of practicing the healing art without having obtained a certificate from the State Board of Examiners in the basic sciences. He appealed to the Supreme Court of Arizona, contending that there was no law in the state requiring that he obtain a basic science certificate in order to practice the healing art. With this contention the Supreme Court agreed. The referendum measure, said the court, was improperly submitted to the voters and consequently it did not become a law. The constitution required that the measure be submitted at the next "general" election. It was erroneously submitted at a "special" election. The judgment of conviction was reversed and the cause remanded with directions to dismiss the charge. (*Estes* vs. *State* (Ariz.), 58 P. (2d) 753.)—*Journal A. M. A.*, March 20, 1937.

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Food Habits and Nutrition of Pacific Coast Industrial Families.—Typical workingmen's families in five Pacific Coast cities tend to obtain better diets than North Atlantic industrial families who spend approximately the same amounts for food, according to a report by the Bureau of Home Economics, United States Department of Agriculture, on its study of food consumption and costs among city workers' families in these areas and in the South. Records of daily food purchases were kept during 1935-1936 by 2,800 families in all areas, of whom 688 lived in Los Angeles, San Francisco, Sacramento, Seattle, and Oakland.

The Bureau attributes better diets of Pacific Coast families in part to their comparatively large consumption of fruits and vegetables. Prices for fruits and vegetables were lower in the Pacific than in the North Atlantic cities, and at each expenditure level, the Pacific Coast families bought more of these so-called "protective foods" than did North Atlantic families. Records show the Western families bought about the same quantities of eggs and milk on a per capita basis; less meats, and a smaller proportion of grain products as baked goods.

Pacific Coast families allotted from one-fourth to one-third of their incomes, ranging from $500 to about $2,000, for food. About one-third of the 688 families were spend-

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ing less than $2.50 per capita a week for food; about 60 per cent were spending between $2.50 and $5.

The amount of money available for feeding the family appeared to have a definite effect on the kind, the amount and nutritive value of food bought. Over three-fourths of the Pacific Coast families who were spending around $4 per capita a week were buying food in sufficient quantity and variety to provide a high-grade diet, likely to promote health. Slightly over one-third of the families spending about $2.75 per person per week were on high-grade diets.

From the average per capita consumption of each of five groups of families spending different amounts for food, it is possible to estimate what similar families, spending from $1.25 to $5 per capita a week for food, are likely to purchase.

For each "average" member of a family spending about $2.15 per person a week for food—about one-fourth of all the Pacific Coast families studied—the weekly market basket held about 5 eggs, 5 pints of fresh milk, one-third pound of butter, 2 pounds of meat, poultry or fish, 1 pound of sugar, 2 pounds of bread and rolls, 1 pound of flour and meal, one-half pound of cereals, 2 pounds of potatoes, 3 pounds of other vegetables, 2 pounds of tomatoes and citrus fruits, 3 pounds of other fruits.

The families spending an average of $3.30 per capita a week bought only slightly larger quantities of bread and rolls, flour and meal, and cereals. Their purchases of certain other commodities, however, were noticeably larger. Their average weekly per capita consumption of these commodities was: 7 eggs, 6 pints of fresh milk, one-half pound of butter, 3 pounds of meat, poultry or fish, 1.5 pounds of sugar, 3 pounds of potatoes, 4.5 pounds of other vegetables, 3 pounds of tomatoes and citrus fruits, and 4 pounds of other fruits.

Differences in the average consumption of these foods by the few families spending about $1.60 per capita a week and those spending about $4 were even more marked. The latter group bought per person more than twice as much butter, eggs and meat, and almost twice as many pounds of succulent vegetables and fruit.

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BOOK REVIEWS

Books received for review are placed in the Library of the California Medical Association, in its central office at San Francisco. Book reviews are written by the Association Secretary.

BOOKS RECEIVED

The Larynx and Its Diseases. By Chevalier Jackson, M.D., Sc.D., LL.D., F.A.C.S., Professor of Bronchoscopy and Esophagoscopy, Temple University, Philadelphia, and Chevalier L. Jackson, A.B., M.D., M.Sc. (Med.), F.A.C.S., Professor of Clinical Bronchoscopy and Esophagoscopy, Temple University, Philadelphia. Cloth. Pp. 555, with 221 illustrations, including eleven plates in color. Price, $8 net. Philadelphia: W. B. Saunders Company, 1937.

Collected Papers of the Mayo Clinic and the Mayo Foundation. Edited by Richard M. Hewitt, B.A., M.A., M.D., Lloyd G. Potter, and A. B. Nevlind, M.D. Volume XXVIII (Papers of 1936. Published 1937). Cloth. Pp. 1331, with 212 illustrations. Price, $12 net. Philadelphia: W. B. Saunders Company, 1937.

Clinical Reviews of the Pittsburgh Diagnostic Clinic. Guide-posts to Medical Diagnosis and Treatment. Edited by H. M. Margolis, B.S., M.D., F.A.C.P. Cloth. Pp. 552. Price, $5.50. New York: Paul B. Hoeber, Inc., 1937.

Personal Hygiene. By C. E. Turner, M.A., Dr.P.H., Professor of Biology and Public Health in the Massachusetts Institute of Technology; Formerly Associate Professor of Hygiene in the Tufts College Medical and Dental Schools; Sometime Member of the Administrative Board in the School of Public Health of Harvard University and the Massachusetts Institute of Technology; Fellow American Public Health Association. Cloth. Pp. 335, with eighty-four text illustrations and three color plates. Price, $2.25. St. Louis: The C. V. Mosby Company, 1937.

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles. By leading members of the medical profession throughout the world. Edited by Louis Hamman, M.D., Visiting Physician, Johns Hopkins Hospital, Baltimore, Maryland. Volume II. Forty-Seventh Series, 1937. Cloth. Pp. 315. Philadelphia: J. B. Lippincott Company, 1937.

Infantile Paralysis and Cerebral Diplegia. Methods Used for the Restoration of Function. By Elizabeth Kenny, with Foreword by Herbert J. Wilkinson, Professor of Anatomy and Dean of the Faculty of Medicine, University of Queensland. Cloth. Pp. 125, illustrated. Price, £1, 1s. Sydney, Australia: Angus & Robertson, Limited, 1937.

The Mentally Ill in America. A History of Their Care and Treatment From Colonial Times. By Albert Deutsch, with an Introduction by William A. White, M.D., D.Sc.,

(Continued on Next Page)

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BOOKS RECEIVED

(Continued from Preceding Page)

LL. D., Late Superintendent of St. Elizabeth's Hospital, Washington, D. C.; Professor of Psychiatry, George Washington University. Cloth. Pp. 530. New York: Doubleday, Doran & Company, Inc., 1937.

A Brief Outline of Modern Treatment of Fractures. By H. Waldo Spiers, A.B., M.D., Professor of Orthopedic and Fracture Surgery, College of Medical Evangelists, Los Angeles. Second Edition. Cloth. Pp. 137, illustrated. Baltimore: William Wood & Company, 1937.

Clinical Allergy Due to Foods, Inhalants, Contactants, Fungi, Bacteria, and Other Causes. Manifestations, Diagnosis and Treatment. By Albert H. Rowe, M.S., M.D., Lecturer in Medicine in the University of California Medical School, San Francisco, California; Chief of the Clinic for Allergic Diseases of the Alameda County Health Center, Oakland, California; President of the Association for the Study of Allergy, 1927-1928. Cloth. Pp. 812. Price, $8.50. Philadelphia: Lea & Febiger, 1937.

The Treatment of Diabetes Mellitus. By Elliott P. Joslin, M. D. (Harvard), M. A. (Yale), Medical Director, George F. Baker Clinic, New England Deaconess Hospital; Clinical Professor of Medicine, Harvard Medical School; Consulting Physician, Boston City Hospital, with the Coöperation of Howard F. Root, M.D., Physician, New England Deaconess Hospital; Instructor in Medicine, Harvard Medical School; Priscilla White, M.D., Physician, New England Deaconess Hospital; Instructor in Pediatrics, Tufts College Medical School; and Alexander Marble, M.D., Physician, New England Deaconess Hospital; Assistant in Medicine, Harvard Medical School. Sixth Edition, Thoroughly Revised. Cloth. Pp. 707, illustrated. Price, $7. Philadelphia: Lea & Febiger, 1937.

Man in a Chemical World. The Service of Chemical Industry. By A. Cressy Morrison. Cloth. Pp. 292. Price, $3. New York: Charles Scribner's Sons, 1937.

TWENTY-FIVE YEARS AGO

(Continued from Text Page 72)

senses, and their importance in the diagnosis of cerebellar tumors, than the entire previous decade had brought out. His latest contribution to this subject is the discovery of a symptom complex based on the tests which he has published in the twenty-odd papers standing to his credit since 1906. . . .

From an article on "The Present Status of Nitrous Oxid in Major Surgery" by Mary Botsford, M.D., San Francisco.—The purpose of this paper is to review the present status of nitrous oxid as an anesthetic in general surgery, and the arguments for and against its routine use. Its safety for short periods has been thoroughly demonstrated by the lack of fatalities following its use in hundreds of thousands of cases in dental offices by untrained administrators, with unprepared patients, and with none of the usual restoratives at hand. . . .

From an Article on "The Choice of an Anesthetic" by Caroline B. Palmer, M.D., San Francisco.—I am somewhat painfully aware of my rashness in attempting to speak on a question which has caused such frequent controversy as the choice of anesthetics. In reading the literature, and in listening to discussions on this subject, one is unavoidably struck by the partisan spirit frequently displayed. It is sometimes more as if politics or religion were being considered than a question of therapeutics. . . .

From an Article on "Mishaps in Treatment" by Douglass W. Montgomery, M.D., San Francisco.—The therapeutic art is one acquired through long and painful experience, and can by no means be learned offhand from books. The value of books in learning is, however, indispensable, but statements in them must be compared with actual experience in order to make the knowledge fruitful.

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From an Article on "Hygienic Laboratory of the State Board of Health"—Report by W. A. Sawyer, M.D., Berkeley.—At the beginning of the current year the State Board of Health established a Division of Epidemiology under the Bureau of the Hygienic Laboratory. As a result, we anticipate being able to do more than ever before in studying and controlling epidemics. The Division has already made decided progress along two lines of investigation, both of which depend to a great extent on the laboratory side of the work. . . .

From an Article on "Diaphragmatic Pleurisy—A Stumbling Block in the Consideration of the Acute Abdomen" by Daniel Crasby, M.D., Oakland.—In these days of rapid surgical advance, more and more those men who are doing only occasional surgery are operating upon patients who were heretofore left for the consideration and discretion of the surgical specialist. . . .

From an Article on "Antityphoid Vaccinatian" by Major Brooke, United States Army.—Before taking up the prophylactic treatment of typhoid fever, I will preface my remarks by referring briefly to the morbidity and mortality of this disease in recent wars and in the United States at the present time.

During our Civil War, 80,000 cases of typhoid fever were recognized as such among the federal forces and probably as many more sick were accounted for under other heads, owing to the imperfect methods of diagnosis present at that period. In the Franco-Prussian War, over 70,000 cases were reported in the German army. During the Spanish-American War about 20 per cent of the men in the national encampments came down with the disease, of which 7 per cent died, and it developed in 90 per cent of the volunteer regiments within eight weeks of mobilization. In the South African War the British forces, consisting of 555,000 men, had 57,684 cases, of which 8,225 died. According to Osler about 500,000 people in this country incur enteric fever annually, with a mortality of from 35,000 to 40,000.

Certainly, any measure capable of preventing typhoid fever or reducing the mortality of this ubiquitous disease is worthy of careful study and consideration. . . .

From an Article on "A Report of Twenty-Eight Cases of Tropical Abscess of the Liver" by Rea Smith, M.D., Los Angeles.—Abscess of the liver is so serious a complication and so frequent a termination of amebic dysentery, that I have taken the liberty of bringing before you the following report of twenty-eight cases of liver abscess that have occurred in our practice in Los Angeles during the last ten years. One of these cases developed in Goldfield, one at Mojave, one in Arizona, and the remaining twenty-five came from Mexico for surgical treatment after the disease had been diagnosed and the patient referred to us by the local physician. . . .

From an Article on "Mechanism and Clinical Aspects of Chronic Arterial Hypertension" by R. L. Cunningham, M.D., Los Angeles.—In the human body the blood within the arterial system is normally under a pressure which varies, at the end of cardiac systole, from 110 to 125 millimeters of mercury, as read by the ordinary sphygmomanometer from the brachial artery. This normal, or physiological tension of the arteries is maintained chiefly by four factors: (1) The force of the systolic contraction of the heart muscle; (2) the peripheral resistance in the smaller

(Continued on Page 17)

NEUROSYPHILIS

A spinal fluid examination sometime during the first six months treatment of early syphilis is considered an essential diagnostic measure for the detection of asymptomatic neurosyphilis. Syphilitic involvement of the central nervous system, diagnosed at this early state of development, will respond in the majority of cases to arsenical therapy combined with one of the heavy metals.

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TWENTY-FIVE YEARS AGO

(Continued from Page 15)

vessels; (3) the elasticity of the vessels through which the blood passes; and (4) the amount of blood held within the vessels. Two accessory factors may be taken into account in addition to the four just mentioned—the respiratory movements of the thorax, and the contraction of the skeletal muscles. . . .

From an Article on "Clinical Aspects of Urosepsis" by M. Krotoszyner, M.D., San Francisco.—Various are the names and manifold the classifications under which infections of the urinary tract and systemic toxemias, due to one or more septic foci in the uropoietic system, are recorded in the literature. Guiteras' exhaustive textbook, for instance, which represents the most modern views on matters urological, deals with the subject under the different headings of "Urinary Fever," "Catheter Fever," "Urinary Infection." Watson and Cunningham, to quote one more authoritative standard urological work, devote a brief chapter to urethral shock or chill—urinary infection or urinary fever. Similarly confusing is the classification under which this subject is treated in the rather scant contributions of our periodical literature. . . .

BOARD OF MEDICAL EXAMINERS

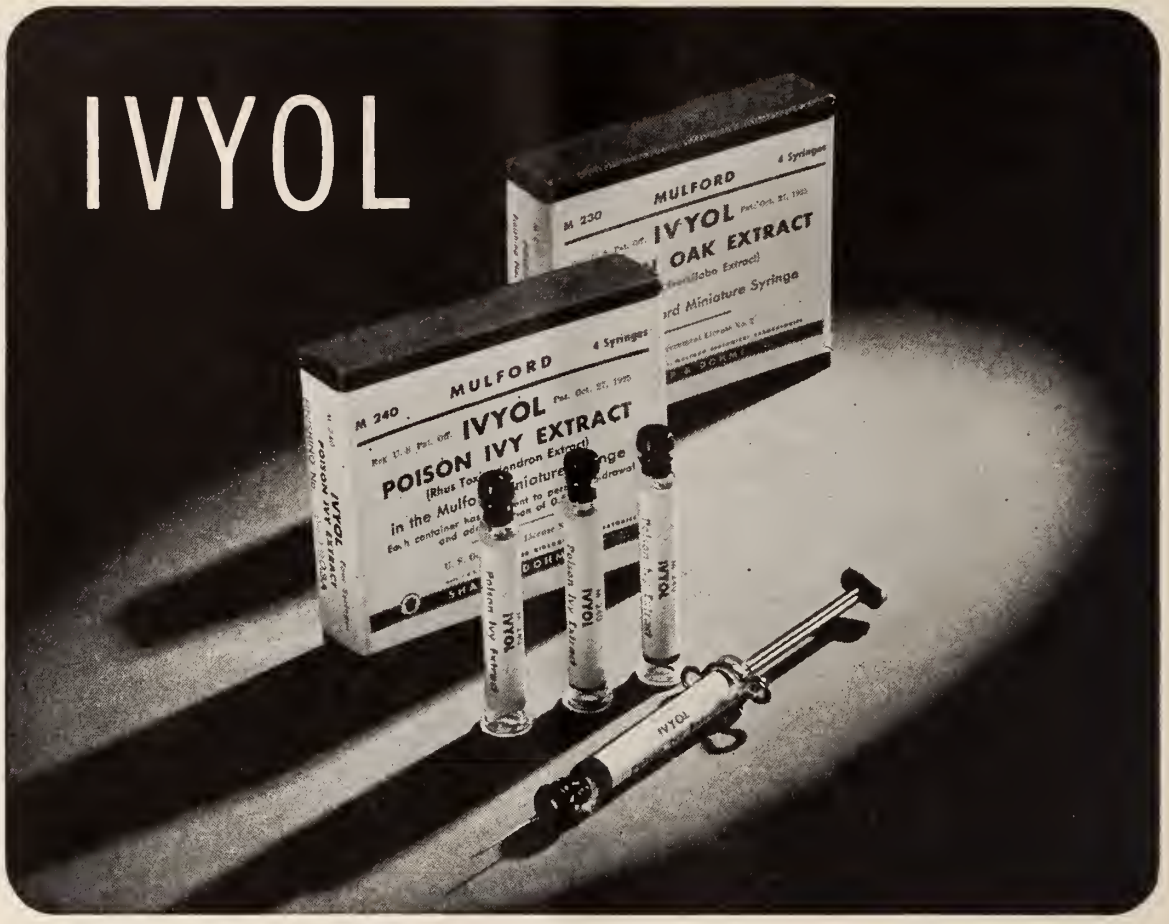
(Continued from Text Page 72)

trict Attorney John McMahon, Prosecutor, said Mrs. Ann Fisher, a nurse, sought in connection with the Arganbright death, had been arrested in Nevada City and would be charged as an accomplice. Inspector Harry Husted and Deputy District Attorney McMahon took her into custody as she sat in a parked automobile. Her husband, who was prospecting for gold in a creek near by, was not held." (San Francisco *Call-Bulletin,* June 9, 1937.)

"Charged with two counts of abortion and a third count on conspiracy to commit others in violation of 247 [Section 274] of the State Penal Code, Dr. Gordon L. McLellan, 579 East Fourteenth Street, his wife, Annabelle, and Mrs. Lucille Bouton, alias Mrs. A. Donohue, 1365 104th Avenue, Elmhurst, will appear for their preliminary examination in the Oakland Police Court, Department No. 1, next Wednesday morning at nine o'clock. All three defendants were taken into custody for investigation last Saturday morning, following weeks of intensive investigation by Inspector Thomas Duffy and Lou Jewell of the Oakland Police Department. . . . Though held over last week-end in the Oakland city jail, actual charges were not filed until Tuesday afternoon. . . . Handling of the State's case is in charge of Deputy District Attorney Larry Dayton, while the McLellans are represented by Frank Creeley, Oakland attorney. While no official steps have been taken toward filing further charges, it was disclosed that the State Board of Medical Examiners have for the past several weeks been conducting an intensive investigation of McLellan relative to his granting of narcotic prescriptions. To this end the records of all local druggists have been checked and in some instances the narcotic book records of the druggists have been impounded. . . . Mrs. Bouton is alleged by Duffy to be the 'solicitor' for Doctor McLellan. All three were remanded to the Oakland city jail, pending the posting of $2,500 cash bond each, following their arraignment Wednesday morning, at which time they pleaded 'not guilty' to the charge." (San Leandro *News,* June 4, 1937). A citation has been served on Doctor McLellan, calling him before the Board of Medical Examiners at the meeting opening in Native Sons Hall, San Francisco, June 28, 1937, to show cause why his license should not be revoked. The citation is based on two charges: one alleged illegal operation, the other alleged narcotic derelictions.

"Accused of practicing medicine in Huntington Park without a license, Lisa Mae Gray of 317 South Ardmore

(Continued on Page 19)



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BOARD OF MEDICAL EXAMINERS

(Continued from Page 17)

Avenue, Los Angeles, was arrested yesterday upon a complaint filed by W. N. Anderson, State Medical Inspector." . . . (Huntington Park *Independent*, June 3, 1937.)

"Five hundred dollars fine and 180 days in jail. That was the sentence imposed yesterday by Municipal Judge A. A. Scott on Eugene J. Rinaldo, recently defeated candidate for the Board of Education, who was convicted by a jury May 19 of practicing medicine without a license. Judge Scott denied Rinaldo's motion for a new trial and released him under $1,000 bond after his attorney, Walter I. Lyon, gave notice that the case would be appealed to higher courts. Municipal Judge James H. Pope heard Rinaldo's trial, following which the jury returned a guilty verdict after ten minutes' deliberation. . . . At the trial Walter H. Anderson, Assistant Special Agent for the State Board of Medical Examiners, testified that Rinaldo did not have a license to practice medicine when he attended Miss True Brunskill." (Los Angeles *Examiner*, June 9, 1937.) (Previous entries, September and December, 1928; February and September, 1929; September and December, 1930; June, 1931; July and December, 1932; May, July, and August, 1933; February, 1934; May, 1935; December, 1936.)

"In a story in the *Call-Bulletin* for May 25, this statement appeared: 'Dr. Buren L. Corley, an unlicensed chiropractor, was fined $30 each on nine counts for violation of the Federal Food and Drug Act, when he appeared today before Federal Judge Louderback. The statements regarding the finding of Corley were correct, but he is a licensed chiropractor, and the use of the word 'unlicensed' in connection with chiropractor was in error.'" (San Francisco *Call-Bulletin*, June 7, 1937.)

"Held in the county jail in lieu of $10,000 bail, Dr. Samuel Burgeson, surgeon, of 929 Fetterly Street, this week faced prosecution on a murder charge growing out of the death April 16 of a woman patient, assertedly as a result of an illegal operation. Doctor Burgeson was arraigned before Municipal Judge Newcomb Condee, accused of the murder of Mrs. Pauline Wommack of Manhattan Beach, who died in the Magnolia Hospital, Long Beach, a month ago. . . ." (Los Angeles *East Side Journal*, May 27, 1937.) (Previous entries, March, 1934; March, 1937.)

"A criminal complaint charging that Charles K. Stanley of 3817 Center Street prescribed and administered a cancer remedy for Mrs. Mabel Stoyker without first obtaining a license from the State Board of Medical Examiners, was issued by the District Attorney's office today. The complaint accused Stanley of charging Mrs. Stoyker $15 per month for three treatments per week. In a similar complaint issued today, Charles W. Smith is alleged to have prescribed medical care for W. M. Anderson, without obtaining a license to practice medicine." (San Diego *Sun*, May 29, 1937.)

"Found guilty of practicing medicine without a license from the State Medical Board, Consuela Viramontes, formerly of Colton, was sentenced by Justice Russell Wickizer in San Bernardino Township court yesterday to pay a fine of $100 and to serve 180 days in the county jail. The jail

(Continued on Next Page)

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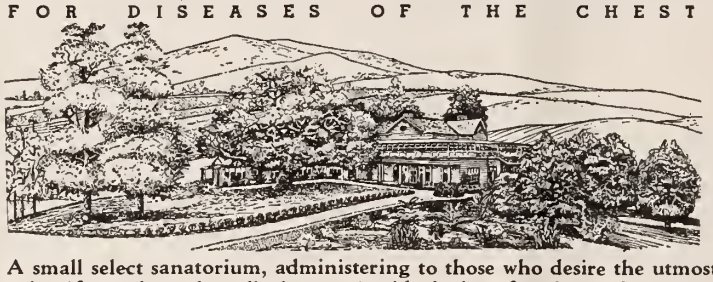

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BOARD OF MEDICAL EXAMINERS

(Continued from Preceding Page)

sentence was suspended for six months upon condition Mrs. Viramontes does not violate any law in that period. Mrs. Viramontes was accused by the State Board of prescribing medicine and treating the sick." (San Bernardino *Telegram*, May 29, 1937.)

"Dr. Paul A. Bulpitt, Santa Monica physician and surgeon, is named in a bench warrant issued out of the Santa Monica Department of the Superior Court, which Judge Parker Wood this morning ordered served forthwith and bail fixed at $500. Previous to making the order, Judge Wood said: 'The situation should be dealt with to the full extent of the law when the doctor is brought into court.' Testimony before the court was that Doctor Bulpitt has disregarded two subpoenas to appear in the court. The last summons ordered Doctor Bulpitt into court this morning, but in the face of that he left Sunday night for Chicago, according to the statement of H. V. Poole, attorney for Printz. . . ." (Santa Monica *Outlook*, June 1, 1937.)

"Suit to compel the State Board of Medical Examiners to reinstate him as a practicing physician and surgeon was brought in the Superior Court here yesterday by Glenn Granger White, who alleged his license was revoked last February 11 at a hearing in Los Angeles, where he was allegedly denied permission to present certain evidence in his own behalf." (San Diego *Union*, June 2, 1937.) (Previous entry, March, 1937.)

"On a reduced charge of violating the State Medical Practice Act, Mrs. Yanka Zlataroff, forty-two, suspected abortionist, today was fined $250 by W. A. Dining, South San Francisco Police Judge. Louis B. DeMatteis, Deputy District Attorney who prosecuted the case, said that he was forced to reduce the charge against Mrs. Zlataroff from abortion because the principal witness against the defendant refused to testify. . . . Judge Dining gave Mrs. Zlataroff the alternative of the fine or 125 days in jail. She said she would pay the $250. Police previously had failed in their attempts to connect Mrs. Zlataroff with the death of her 21-year-old daughter in San Mateo Community Hospital from mysterious abdominal injuries which hospital attendants said might have been caused by an illegal operation." (Palo Alto *Times*, May 22, 1937.)

"Sought after jumping $1,000 bond, following his arrest May 10 for assertedly violating the State Medical Practice Act, Bernard Ruiz, forty-five years of age, of 1821 Rosemead Street, Alhambra, yesterday was in custody of Sheriff Jose Viramontes at Las Cruces, New Mexico. Judge Marion of Belvedere Justice Court issued a bench warrant for Ruiz when he failed to appear for arraignment May 11. Arrested as he visited relatives of his young bride at La Mesa, Ruiz has retained counsel and will fight extradition to Los Angeles, where he is wanted also for questioning in connection with an asserted operation ring." (Los Angeles *Times*, May 16, 1937.)

"Miss Judith Klinkhammer, eighteen, of Klamath Falls, died at Knapp Hospital Monday. A coroner's jury decided Tuesday that death was caused by peritonitis, induced by an asserted abortion. Testimony at the inquest, conducted by Deputy Coroner Murdoch G. Roeder, indicated that the alleged abortion was performed at Klamath Falls on April 24 and that the girl became very ill here April 25. She was in the hospital from that time until her death. L. Orth Sisemore, Special Deputy, representing District Attorney H. C. Blackmer of Klamath County, was present at the inquest, but said he did not know whether

(Continued on Page 22)

DIARRHEA

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(HOLT AND McINTOSH: HOLT'S DISEASES OF INFANCY AND CHILDHOOD, 1933)

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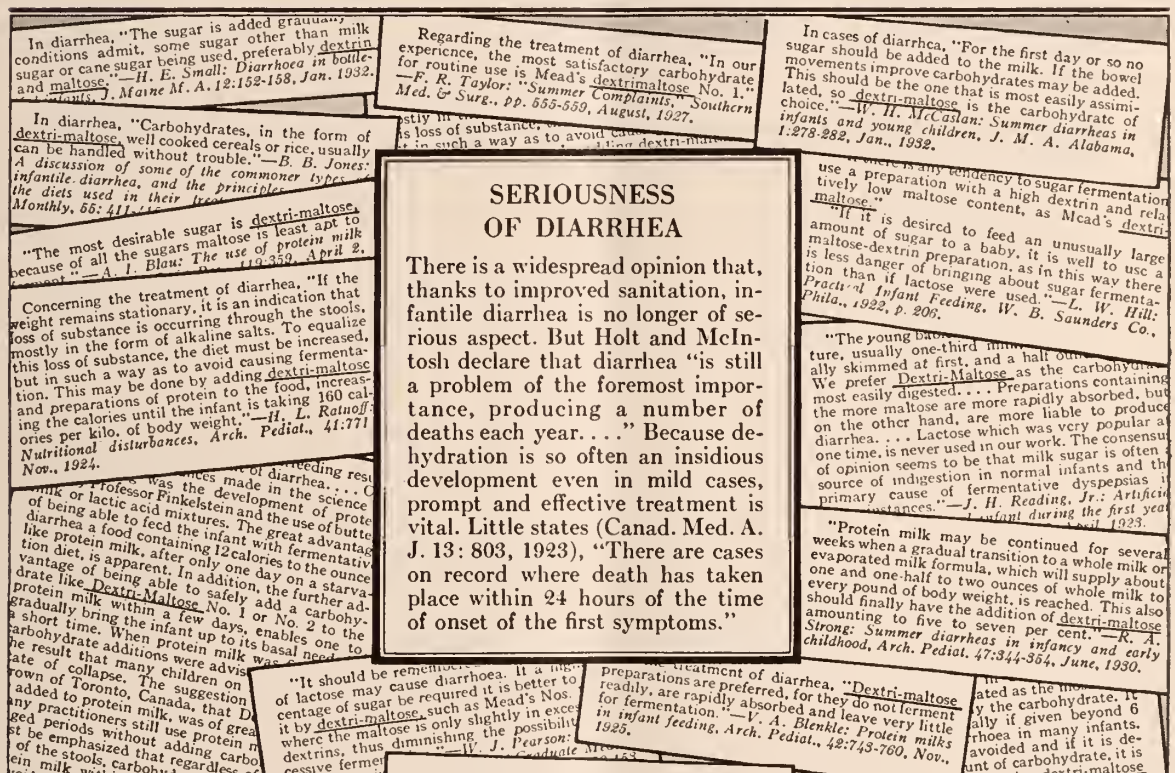

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BOARD OF MEDICAL EXAMINERS

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Blackmer would institute a criminal investigation to determine the person who performed the abortion. Such an investigation appeared entirely probable, however. The body was taken to Klamath Falls for burial." (Crescent City *Triplicate,* May 4, 1937.)

"Charges of fraudulent 'healing' in violation of the Medical Practice Act were made yesterday with the arrest of Francis Truth, self-asserted 'divine healer.' Two warrants were issued on the request of the State Medical Board after an investigation by William J. Connelley, Assistant District Attorney. The warrants, signed by two asserted victims, were issued by Municipal Judge Thomas F. Prendergast. . . . The treatment, according to one of the asserted victims, Mrs. A. J. Dye, 945 Larkin Street, consisted of Truth's placing his hands on her head and shoulder while he asked the Deity to cure afflicted parts of her body. When she said she was suffering from nervousness following an operation, Truth assertedly promised 'to have her walking in no time.' Fees ranged from $35 to $3 for each call, authorities asserted. While discussing the fee to be charged, one patient, in an attempt to refute her plea that she was unable to pay $35, Truth allegedly implied she wore several diamonds which could be sold, Connelley said. Truth's claim of power to cure any and all human ills led to many complaints being filed with the Better Business Bureau, investigators said." (San Francisco *Examiner,* May 18, 1937.)

"Levon G. Kassabian. thirty-seven, of 817 West Fifty-eighth Street, today was sentenced to pay a fine of $150 as a provision of two years' probation given him by Municipal Judge James H. Pope on a charge of practicing medicine without a license." (News dispatch, dated Los Angeles, May 5, and printed in the Pasadena *Star-News,* May 5, 1937.)

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"Captured following a two-mile chase, Dr. John H. Fitz, sixty-two, of Montesano, Washington, was questioned by Oakland police. Suddenly his breathing became heavy and rasping, and he collapsed. Physicians were called, but were unable to diagnose his ailment. Today he was in a respirator as doctors sought to identify his illness. . . ." (San Francisco *News,* May 14, 1937.) According to the Oakland *Tribune,* May 14, 1937, Doctor Fitz had been a patient in a Washington Hospital about a year previously, and, it is said, diagnosis of his case was obtained from said hospital.

"The Imperial County Grand Jury yesterday afternoon returned a true bill against Dr. Thomas O. Luckett and his wife, Mrs. Lucille Luckett, charging them with performing an abortion, a violation of Section 274 of the California Penal Code. Immediately upon reading of the indictment to the Court, Deputy District Attorney Ralph French asked for and received a bench warrant. . . . Doctor Luckett was arrested Sunday afternoon after he and Mrs. Luckett had performed an operation upon a young girl, who was examined by the grand jury yesterday, her eighteenth birthday. The young man in the case was not examined, but is being held in jail with Doctor Luckett. Judge Doy D. McPherrin, who issued the bench warrant in Superior Court, set bail for both Dr. and Mrs. Luckett at $4,000. . . ." (Calexico *Chronicle,* May 13, 1937.)

Medical Practice Acts: Revocation of License for Advertisements Tending to Deceive the Public.—The Board of Medical Examiners of California revoked the plaintiff's license to practice medicine, finding him guilty of distributing, in contravention of the Medical Practice Act, an advertisement having a tendency to deceive the public or to impose on credulous or ignorant persons. Fuller, the plaintiff, by certiorari proceedings, contested in the Superior Court the action of the Board. The Court modified the ruling of the Board by striking out the portion revoking the license and inserting in its place a reprimand to Fuller. As thus modified, the Board's ruling was affirmed. Both Fuller and the Board appealed to the District Court of Appeal, Second District, Division One. California.

The Board of Examiners contended that the Superior Court had no jurisdiction to substitute a new and different penalty in the place of that pronounced by the Board. With this contention, the District Court of Appeal agreed. Under the provisions of the California Code of Civil Procedure, the Court said, the review on certiorari cannot be extended further than to determine whether the inferior tribunal has regularly pursued its authority. The reviewing court has no authority to go beyond the question of jurisdiction, because on every other question the action of the inferior tribunal is final and conclusive. The power of the reviewing tribunal to modify, like its power to annul, can be exercised to change an action of an inferior board only when the latter by such action has exceeded its jurisdiction. In the present case, the Court said, the Board of Medical Examiners acted within its jurisdiction in imposing a judgment authorized by the Medical Practice Act. The Board alone has the power to modify or revoke it.

In his appeal, Fuller contended that there was no substantial evidence in the record to support the Board's findings. The gist of the accusation against Fuller was that he published a pamphlet or booklet in which he claimed, among other things, to possess a cure for hernia without resort to the risks of major surgery. In this booklet, he asserted it to be an indisputable fact that radical surgery in the treatment of hernia results in a comparatively large proportion of actual recurrences—a return to the original condition of hernia, or to a predicament far worse than before the operation. It was further asserted that resort to surgery necessitated an open wound which might, even though under sterile conditions, become infected, whereas the injection method advocated by Fuller did not admit of any exposure to infection. The advertisement then went on to claim that Fuller injected fluid in such a manner that it

(Continued on Next Page)

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(Continued from Preceding Page)

did not reach the abdominal cavity and proclaimed his ability safely and economically to cure hernia without a radical surgical operation.

Without a doubt, the Court said, a state has the right to require that the possessor of a license to practice medicine shall be a person of good moral character, reliable, trustworthy, and not given to deception of the public or to the practice of imposing on credulous or ignorant persons. On the other hand, the right of a licensed physician to practice is not a mere shadowy privilege, to be revoked regardless of whether the holder thereof has violated the laws of the state. It is a valuable right, to be protected at least by such safeguards as the Legislature has drawn around it. The provision in the Medical Practice Act authorizing the revocation of a license is in the nature of a penal provision and, therefore, it is to be construed with a degree of strictness commensurate with the severity of the penalty it imposes. Under the weight of authority, however, the reviewing court has no right on certiorari to judge the intrinsic value of the evidence, nor weigh it. The writ cannot be used to determine whether or not the evidence was sufficient, in the opinion of the reviewing court, to support the particular decision complained of, provided the inferior tribunal or board had jurisdiction and the record discloses substantial evidence to support the decision. Although, continued the District Court of Appeal, we might be in entire accord with the views of the court below that the penalty imposed in the present case, under all the facts and circumstances, was out of all proportion to the element of social justice in the premises and the culpability of the petitioner, if any, under the Medical Practice Act, nevertheless the action of the Board is final and conclusive on every question except that of jurisdiction. While it was true that there was a conflict in the evidence presented to the Board at the hearing, yet where the board or tribunal whose decision is sought to be reviewed has acted on a conflict of the evidence, and where it has not acted on an entire absence of any comp tent evidence, it has not exceeded its jurisdiction, and a reviewing court cannot, under such circumstances, interfere with or annul the decision rendered by the inferior tribunal. For these reasons, the District Court of Appeal modified the judgment of the Superior Court by striking therefrom the penalty sought to be substituted for the penalty imposed by the Board of Medical Examiners, and, as so modified, affirmed the judgment. (*Fuller* vs. *Board of Medical Examiners* (Calif.), 59 P. (2) 171.)—*Journal A. M. A.*

State Compensation Insurance Fund. — Industrial Accident Commissioner Frank C. MacDonald announces that the State Compensation Insurance Fund, which is conducted under the supervision of the Industrial Accident Commission, now has assets totaling $14,346,811.29. This surpasses any previous record of the Fund. The premiums written during the first quarter of 1937 amounted to $2,539.813.10, which was a gain of $662,000 over the premiums for the first quarter of 1936, and is an increase of 35 per cent.

In addition to having $12,147,295 invested in gilt edge State and Federal bonds, the State Fund has $1,498,000 in cash and short-term United States Treasury notes.

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These gains not only reflect the increased volume of business being done in California, but also prove the Fund to be in an exceptionally sound and flourishing condition.

By study man produced the stone tool, the bow and arrow, the numerals, and the alphabet. Likewise tillage, books, and all else by which he lifted himself out of savagery. Among his great works—poems, commerce, and government—each is a creation of the mind. The structures in which man resides, works, and escapes the pelting elements, the conveyances in which he travels, are but mental reflections that have taken tangible form.

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Optometry: Corporate Practice of Optometry Illegal in Ohio.—The Buhl Optical Company, a Delaware corporation, was granted authorization to engage in the manufacture and sale of optical goods and photographic supplies in Ohio. It operated stores in several cities of the state. Contending that the corporation was illegally engaged in the practice of optometry, the state on the relation of the attorney-general instituted in the Supreme Court of Ohio an action in *quo warranto* against it.

Prior to April, 1935, the corporation employed licensed optometrists to act as managers of its optical business and in connection therewith to practice optometry. For all of such services, whether as managers or as optometrists, they received a salary and commission paid by the corporation. Subsequent to the date named, the arrangement was changed by a written contract providing that, in consideration of the optometrist referring to the corporation patients

(Continued on Next Page)

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WHEATON, ILLINOIS

(Continued from Preceding Page)

desiring glasses on prescription and of the corporation referring to the optometrist all of its patrons desiring an examination of the eyes, the corporation leased to the optometrist certain office space in its place of business and permitted the optometrist to use certain equipment owned by the corporation for the examination of eyes. For examining eyes the optometrist agreed not to charge in excess of $1, no part of which was to go to the corporation. The optometrist further promised to sell to the corporation, after the termination of the contract, all of his prescription files for $1. Practically all patients who went to the optometrist were customers of the corporation and were attracted, to some extent, by advertisements inserted by the corporation in the daily newspapers. While customers might take the prescriptions given by the optometrist to any optician, spectacles were customarily obtained from the corporation, which sent the prescriptions to its home office at Pittsburgh, where the lenses were ground and mounted in frames.

A corporation, said the Supreme Court, may not directly or indirectly engage in the practice of optometry in Ohio. An incorporated optical company may lease an office or equipment to an optometrist and even carry his advertisements with its own. But while the optometrist is practicing his profession in such office and with such equipment, the corporation may not employ him in its optical business. If this course were permitted, the optometrist could bargain for and obtain such a high salary from his employer that he could afford to serve customers free of charge or for a nominal fee. In this way the amount of salary he could demand would be greatly augmented by attracting customers to the optical business through inexpensive optometric services. The optometrist would become a mere adjunct of the optical business, and the corporation in effect would be practicing optometry. The practice of the optometrist must be wholly separate from and independent of the business of the optical company. Where the optometrist leases quarters or equipment, or both, from the optical company, the latter may receive prescriptions for eyeglasses

APPROVED CLINICAL PATHOLOGISTS

American Medical Association Essentials for An Approved Clinical Pathologist

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from such optometrist the same as from any other. The optical company, however, may not lawfully exercise any control over the optometrist nor may it fill prescriptions issued by an optometrist legitimately employed by it. It may not advertise in such a way as to lead the public to believe that it does the work of the optometrist or do anything through an employee that amounts to the practice of optometry, even though such employee is an optometrist. The corporation may not enter into a contract with the optometrist by which the optometric work of the latter is regulated or controlled, in the prices to be charged, the customers to be served, or the manner of doing the work. Neither may the corporation retain nor acquire control over or ownership of or interest in any records, copies of prescriptions, or prescriptions of the optometrist.

A judgment was, therefore, entered against the corporation, ousting it from engaging directly or indirectly in the practice of optometry in Ohio. (*State ex rel. Bricker, Attorney-General,* vs. *Buhl Optical Co.* (Ohio), 2 N. E. (2d) 601.)—*Journal A. M. A.*

Wood Ticks Abundant in May and June.—In the last few years an increasing number of cases of Rocky Mountain spotted fever have been reported in the East. It has appeared in nearly all states except those in New England, and Ohio, Michigan, Wisconsin, and Mississippi. A number of cases of this tick-borne disease occur each year in Maryland and Virginia in the vicinity of Washington, D. C., and also in North Carolina, Delaware, Pennsylvania, and New Jersey. In the far west, spotted fever is carried by a different species of tick, not the American dog tick.

From the standpoint of wood-tick infestation, May and June are the worst months for camping or hiking in regions where these insects are abundant, according to Dr. F. C. Bishopp of the United States Department of Agriculture. By the first of August the ticks practically disappear. The late summer is a better time for out-of-doors activities in sections where ticks are common.

Ticks live on blood obtained by attaching themselves to animals or human beings. A tick bite may result in nothing worse than a local irritation. Or it may serve as a point of entry for serious bacterial infection of some sort. The common dog tick or wood tick is frequently a disease carrier. Rocky Mountain spotted fever is the most widespread and most dangerous of the tick-borne diseases. It has a high mortality. But some species of ticks also have been known to carry tularemia, or rabbit fever, and others, mainly in the West, a disease called relapsing fever, and a peculiar form of paralysis.

Although adult ticks prefer the blood of dogs, they may attach themselves to horses, cattle, and larger wild animals, as well as to man. The young ticks, called "seed ticks" and "nymphs," relish the blood of meadow and pine mice and other small wild animals. When there are none of these little animals on which the young ticks can feed, they disappear. Clearing out underbrush near houses, camps, and frequently used walks, cuts down the number of ticks by removing shelter for their hosts. If ticks are very abundant near a permanent camp site, a creosote oil spray on the area around the camp and along the trails may help to kill vegetation and repel them to some extent.

It is best to confine dogs in yards throughout the tick season, and examine both dogs and horses frequently. Doctor Bishopp recommends pulling ticks off these animals with forceps or tweezers and dropping them into a can of kerosene. This avoids handling them. Ticks that have fed on a dog for a few hours are immediately dangerous if they bite a person, but they are not likely to detach until fully fed, and the engorged females will not reattach. As the Rocky Mountain spotted fever disease can be contracted from crushed ticks, through cuts or scratches, it is a safety measure to wash the hands thoroughly after touching ticks. Derris powder may be scattered lightly over heavily infested dogs. This kills any ticks on the dog and tends to repel others. Since each engorged female tick that escapes will deposit about five thousand eggs, the importance of killing every tick on a dog is emphasized.

If if it is necessary to go into tick-infested places it is advisable to wear high-top shoes over army-type trousers

(Continued on Next Page)

Bequest Forms: Unto the California Medical Association*

FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I hereby give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of $——— to be known as the ——— Gift, to be used and expended by said corporation for scientific, educational, or hospital purposes.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of $———, to be held as a fund, to be known as the [here insert name desired] Fund, the principal whereof shall from time to time be invested to the best advantage compatible with safety, and the income whereof shall be used and applied for scientific, educational, or hospital purposes.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR BEQUEST OF PERSONAL PROPERTY

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used and applied for scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California, to aid and further its scientific, educational, and hospital purposes, and to be known as the ——— Gift, the following described real property situate in the County of ———, State of California, and more particularly described as follows, to wit:

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used for and applied to the support and maintenance of scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

* These Bequest Forms were discussed editorially in CALIFORNIA AND WESTERN MEDICINE, for March, 1936, p. 145, and June, 1936, p. 460.

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(Continued from Preceding Page)

and systematically to examine the body and head at least twice a day. Ticks often attach themselves in the hair at the base of the scalp. They are not likely to transmit the disease unless they remain attached at least six hours.

Ticks are very hardy. They can live from year to year with no food. Adult ticks put in vials without food have been alive and vigorous after more than three years. Hence it cannot be taken for granted that an area is tick-free. New infestations may appear.

Ancient Food Handlers.—Instead of being a modern sanitary whim, how to safeguard a nation's food supply against contamination from handling and other causes is a problem dating in origin from antiquity, Dr. Gerald Leighton recalled in the *Journal of the Royal Sanitary Institute*, a British publication.

"All nations of whom we have record had to face it, and made laws and regulations to deal with it," he said. "Thus, the old Mosaic law defined foods as 'clean' and 'unclean.' It prohibited the use of fat, blood, and the meat of hogs. . . . Immature carcasses of lambs, calves and goats were forbidden, and the period of age of seven days was fixed before these carcasses were considered fit for food. That very regulation is in force in some countries today.

"The ancient Phoenicians prohibited the use of cows and hogs, but, curiously enough, esteemed the flesh of dogs. The early Athenians, as well as the ancient Romans, appointed inspectors to control the meat trade. At one time, butchers in Rome were liable to be fined if they sold uninspected meat. The Romans established elaborate slaughterhouses to render this work possible. . . .

"Then, of course, both Jews and Mohammedans prescribed for the slaughter of food animals methods which persist to the present day, and are even provided for in the most modern legislation on the subject. . . . Most of the regulations on examination will be found to have a sound pathological basis."—*Health Officers News Digest.*

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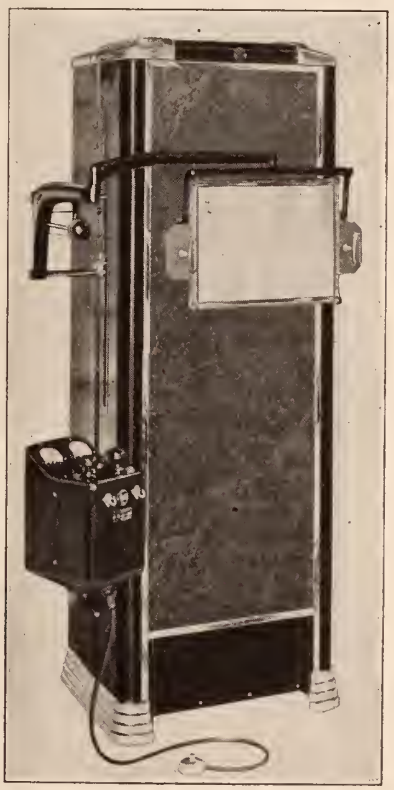

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EDITOR . . . . . GEORGE H. KRESS

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BUSINESS MANAGER . FREDERICK C. WARNSHUIS
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Responsibility for Statements and Conclusions in Original Articles.—Authors are responsible for all statements, conclusions and methods of presenting their subjects. These may or may not be in harmony with the views of the editorial staff. It is aimed to permit authors to have as wide latitude as the general policy of the Journal and the demands on its space may permit. The right to reduce or reject any article is always reserved.

Contributions—Exclusive Publication.—Articles are accepted for publication on condition that they are contributed solely to this Journal. New copy must be sent to the editorial office not later than the fifteenth day of the month preceding the date of publication.

Contributions—Length of Articles: Extra Costs.—Original articles should not exceed three and one-half pages in length. Authors who wish articles of greater length printed must pay extra costs involved. Illustrations in excess of amount allowed by the Council are also extra.

Leaflet Regarding Rules of Publication.—CALIFORNIA AND WESTERN MEDICINE has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

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EDITORIALS†

END-RESULTS OF THE 1937 LEGISLATIVE SESSION: ON PUBLIC HEALTH AND MEDICAL PRACTICE

July 2 Will Decide the Fate of All Proposed Laws.—On page 364 of the June issue of CALIFORNIA AND WESTERN MEDICINE, comment will be found concerning the more important among the 250 bills having relation to public health and medical practice matters which were submitted during the recent legislative session. Yet the complete story will not be told until July 2, for Governor Frank F. Merriam has the right, until that date, to decide whether he will approve, veto, or pocket-veto (that is, not sign for yes or for no) the nine hundred measures still on his desk when the Legislature adjourned on May 28.

* * *

Possible Gubernatorial Action.—It is not possible for us to know, of course, what decision His Excellency will come to in regard to certain of the bills; but since this issue of the OFFICIAL JOURNAL will not run from the press until the Governor's decisions have been made, it may be permissible to hazard a guess or two.

Medical Practice Act and State Board of Health Codes. The revised codes for the State Board of Medical Examiners and the State Board of Health will probably receive approval. The Code Commission's rearrangement of the text of the laws coming under the jurisdiction of those boards is needed and, if enacted into law, should be of real service.

Nonprofit Hospitalization. The nonprofit hospitalization measure (Assembly Bill 1132) has received the approval of the Attorney-General and the Insurance Commissioner, and hopes are held by the Hospitalization Committee of the Los Angeles County Medical Association that the proposed law will receive gubernatorial sanction.

Venereal Diseases. The venereal disease bill, which went on to passage as Assembly Bill 2790, carries an appropriation that will make possible the institution of a real campaign to combat the incidence of syphilis and gonorrhea. It is thought that Governor Merriam is in sympathy with the purposes of the bill, and that he will give it his

†Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column which follows.

approval, although later press dispatches indicated that there might be some change in the amount of funds allocated for the work.

Clinical Laboratories. The Clinical Laboratory, or Senate Bill 118, received a favorable vote in both Senate and Assembly. The State Board of Health, designated as the licensure body, did not approve the measure. It is one of those unfortunate measures which makes it mandatory upon a constituted state agency—in this instance the State Board of Health—to issue licenses, without giving any real disciplinary authority to the Board. If a laboratory, for example, is turning out work that, in the opinion of the State Board of Health, is not up to standard, all the Board can do in the premises is to "recommend" to the director of such a laboratory that certain changes be made! It obligates the Board to give blanket licenses to certain laboratories that have been in existence a certain number of years, and also to "technologists" and "technicians" who have been doing work for a specified time.

Expert Medical Testimony. The Expert Medical Testimony Bill (Senate Bill 446) is before the Governor for consideration, and, if approved, will mark a real step forward in this important field.

Other Measures. The above are the more important measures on which, at the time of this writing, action is still pending. The "open county hospitals" bills went down to early defeat, but will probably be revived two years hence.

The health insurance measures (Senate Bill 605 and companion, Assembly Bill 1491) did not secure legislative sanction and, therefore, lie over again for battle presumably when the Legislature of 1939 convenes.

STANDING COMMITTEES OF THE ASSOCIATION: MEMORANDUM: LETTERS ON THEIR WORK

Rosters of Officers and Committeemen Are Listed in Each Issue of the Official Journal.—On advertising page 2 of each issue of CALIFORNIA AND WESTERN MEDICINE appears a roster of the Association's officers and standing committees. The attention of members of the fifteen important committee groups there listed is called to the resolution, printed on page 417 of the June issue, which, as adopted by the House of Delegates at Del Monte, provides for a mid-annual session meeting of committeemen, to be held this year at Fresno, on Saturday, October 30.

* * *

Committeemen Should Learn Opinions of Fellow Members Through Correspondence.—Members of each standing committee should acquaint themselves with the purport of the above resolution, and should anticipate its purpose by early conference, through correspondence, with one another, and exchange written memoranda on the work their respective committee is supposed to cover. New members of standing committees will find the function of each committee outlined in the Association by-laws, a copy of which may be had by request to the central office of the Association. The chairman of each standing committee has a special obligation in this, and may well take the lead in writing such a memorandum-letter through which opinions may be exchanged, and the basis so prepared for the report which each committee will be called upon to give at the October meeting, at which officers of the Association and county society secretaries will also be present.

JOSEPH POMEROY WIDNEY: FOUNDER OF THE LOS ANGELES COUNTY MEDICAL ASSOCIATION

Los Angeles County Medical Association Is Fortunate.—The Los Angeles County Medical Association, with its 2,255 members,* is perhaps unique because, 'way out on the Pacific Coast, in the southwestern corner of the United States, it shows to organized medicine not only one of the largest component county units of any of the constituent state associations of the American Medical Association, with a headquarters home and a library that are of increasing joy to members and others who visit and use them, but also through the fact that he who was the motivating spirit when the Association was formed, more than fifty years ago—Dr. Joseph Pomeroy Widney, now in his ninety-seventh year!—is still among those present, and at this ripe age continues to display to colleagues, of all ages, an example of work and service that is little less than an inspiration.

* * *

A Life Notable for Its Record of Service.—The notable medical, educational, and civic career of Founder Widney was outlined in CALIFORNIA AND WESTERN MEDICINE in its issues for April and May, 1936 (pp. 292 and 396); and in last month's number, on page 398, was printed his message to fellow members, given seventy-one years after he received his medical degree, when the handsome bronze bust sculptured by another member of the Los Angeles County Medical Association, Dr. Emil Seletz, was unveiled with notable ceremonies. As a member of the Class of 1866 of Toland Medical College, which in time became the School of Medicine of the University of California, Doctor Widney has had the distinction of being the oldest living graduate of that institution.

Attention is now called to the article because a perusal of Doctor Widney's philosophy of service, and his outlook on the evolution of medical practice, as portrayed by him in brief remarks to his colleagues (as he leaned upon the staff which his blindness compels him to carry), cannot do other than make one marvel at such a rounded-out life of service.

For all of us, a fervent wish should be that, with equal humility, we may carry on our work with the same earnestness and devotion as Doctor Widney so successfully has done, and is still doing in his ninety-seventh year. To him, then, our continued good wishes!

*The Los Angeles County Medical Association also carries on its rolls: 22 military members; 36 members on leave of absence; and 91 honorary (retired) members.

QUALIFYING CERTIFICATE (BASIC SCIENCE) INITIATIVE

Naturopaths Seek a Separate Board.—During the recent legislative session a cultist group, the Naturopaths, through Assembly Bill 1472, sought legal recognition from the State of California, and the establishment of a separate licensing healing art board. This year their effort failed; but if past experience counts for aught, this new group of cultist practitioners, as witness the osteopathic and chiropractic acts which exist in California, may hope to be more successful at some future time in their endeavors to secure legal recognition and sanction.

* * *

Contributions of Scientific Medicine to Health and Life Conservation.—Of course, it seems strange that, in a day and generation during which the efficient contributions for the conservation of human health and life, as rendered in the last one hundred years by scientific medicine, have been so great, it should not be self-evident to laymen everywhere that the protection of the health and lives of citizens must be intimately associated with the type and standard of professional education and training which the State demands of those to whom it gives licenses, authorizing them to go before the public as healing art practitioners.

* * *

Smoke Screens in Legislative Chambers.—Unfortunately, it is not a difficult task to create, in the atmosphere of legislative chambers, a smoke screen thrown down through unwarranted statements as to the proposed scope to which a cultist group seeking recognition states it will confine itself; or, through misleading arguments on the efficacy of various modes of treatment, when, as a matter of fact, the fundamental issue that should be considered is the maintenance of that adequate training which makes for keener recognition and diagnosis: the treatment then, in most cases, becoming greatly simplified.

* * *

Initial Recognition Always Followed by Additional Demands.—Once a cultist group secures its first recognition, it is generally the experience that its disciples never rest until the scope of work to which they aspire is legally extended to include as much as possible of what is known as physician and surgeon healing art practice. Witness in this connection, in the last Legislature, the hard battle put forth by the osteopathic group to bring about the school health-certificate enactment by the recent California Legislature, through Assembly Bills 684 and 1880. In one of the committee hearings, at which Doctor Harris of Sacramento was present, the catalogs of osteopathic schools were actually produced as proof (as if such printed matter ever could be proof!) that the courses of training for osteopathic students, as indicated by the amount of the printed hours in the catalog, were more extensive than in the same subjects given in the medical schools of the State University, Stanford, the University of Southern California, or the College of Medical Evangelists!

Consider, again, the efforts of the naturopathic group on behalf of Assembly Bill 742, through which its disciples hoped to secure a separate licensing board. No naturopathic school can point to faithful recognition of standards of preliminary education and professional training, such as are meticulously maintained by the four nonsectarian medical schools of California (University of California, Stanford University, University of Southern California and the College of Medical Evangelists). It would be, then, a patent injustice to permit any group thus to lower the standards of healing art licensure and practice.

* * *

Qualifying Certificate (Basic Science) Law the Answer to Multiple Healing Art Boards Problem.—Mention is made of this recent attempt by the naturopathic group to secure legal recognition through legislative enactment in order again to draw attention to the value of a Qualifying Certificate (Basic Science) law. In California, such a measure, if it is to apply to the three healing art boards already in existence (medicine, osteopathy and chiropractic, and any others which may come into being later) must be a law, not passed by the Legislature, but by initiative vote of the citizens of California. The next state election will be held in the fall of 1938, and initiative measures which would appear on the ballots may need to be circulated in the spring of that year. The expense of securing the 186,000 valid signatures of voters with precinct allocations is not inconsiderable. The cost of such an effort should be contrasted, however, with the indirect cost running through the years that would be levied against nonsectarian practitioners if several thousand additional cultist practitioners were suddenly thrown into healing art practice in California. Something like that happened not so long ago. Shall it be permitted to occur again? It is generally agreed that, as judged by the efficiency of basic science laws in other commonwealths, a qualifying certificate law is the best solution of the problem of multiple healing art licensure boards, and, therefore, a subject well worthy of continued study. At the October meeting of officers, standing committees and county society secretaries, members in attendance must be prepared to express their views on what course should be followed by the California Medical Association Council, to which body, by act of the House of Delegates at Del Monte, responsibility for action has been given.

* * *

Some Newspaper Excerpts of Interest.—After the above comments were sent to the printer, reports of the proceedings of the state convention of one of the groups referred to appeared in the newspapers under date of July 24. They are of interest as showing the trends of thought and proposed action; and for the information of readers of CALIFORNIA AND WESTERN MEDICINE, are given space on page 60 of this issue.

CONGRATULATONS TO DR. JUNIUS B. HARRIS OF SACRAMENTO, AND TO SAN FRANCISCO

The House of Delegates of the American Medical Association, at its eighty-eighth annual session, held at Atlantic City, June 7-11, was called upon to act on several problems of great importance. The session was notable not only because of the actions taken concerning the care of the indigent sick and the relation of governmental agencies thereto, and in regard to birth control clinics and other matters of scientific and public health and welfare importance, but also because of the large attendance, some 9,764 members of the Association having registered.

Of special interest to Californians was the election of Dr. Junius B. Harris of Sacramento as vice-president of the American Medical Association. Members of the California Medical Association, who are familiar with the generous contributions which Doctor Harris for many years has made to scientific and organized medicine, are appreciative of the honor which has come to their beloved colleague, and join in congratulations.

Equally pleasing was the selection of San Francisco as the place of meeting for the 1938 annual meeting of the American Medical Association, to be held during the week beginning June 13. The California Medical Association and the San Francisco County Medical Society may be counted on to give fullest coöperation in all efforts that will make next year's San Francisco gathering a most successful session of the American Medical Association.

At its September meeting, the Council of the California Medical Association will designate the date of its own 1938 session, to be held at the Hotel Huntington in Pasadena.

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 50.

*Resident Death Rates and Public Health.** — The development and increasing use of hospitals, as well as the growing migratory habits of the American people, are having an important effect on the methods of evaluating the health conditions in any locality.

Usually the death rate for a city or county is computed by dividing the number of deaths in that community by the population. Obviously, if a large number of nonresidents are attracted to a city because of superior hospital facilities, etc., it is impossible to get an accurate death rate for the city unless these nonresidents are excluded. For example, in 1935 there were 8,483 deaths in the District of Columbia. Of these, 800, or 9.4 per cent, were of persons who were not residents of the District. On the other hand, it is important to include among the deaths for that area those of residents who have temporarily gone elsewhere.

Such a reallocation of decedents is particularly important for certain diseases. In a preliminary study of eighteen states, it was found that 22 per cent of those dying from tuberculosis died in a city or county in which they were not residents. Of those dying from automobile accidents, 34.9 per cent were nonresidents.

*Abstract of paper read by Dr. Halbert L. Dunn, Chief Statistician of the Division of Vital Statistics, Bureau of the Census, at the annual conference of State and Provincial Health Officers of North America, 1937.

EDITORIAL COMMENT†

THE PHYSICIAN AND THE CHILD AT SCHOOL

When a tired business man goes to his personal physician for medical counsel, he not only is given a complete physical examination, but his history is taken in great detail. This history includes his past and present activities, and the physician considers it as his "activity load," and then, on so considering, and with an understanding of his physical condition, the physician intelligently outlines his daily program according to the indications. A proper diet is devised, his work is limited to his capacity, relaxation or rest periods are arranged, he is supervised as to the types of games he can play at the club, and even the number of holes of golf he may play is limited to the estimated allowance permitted by his physical condition. Every precaution is taken, in other words, to adapt activities to his individual needs. Under such a modified program, and so adapted, this business man will probably carry his "activity load" successfully and without mishap.

It seems justified that similar consideration should be given to the child at school. The child's "activity load" for the most part is his school program. Work required of children at school is comparable to work required of men in the business world. The school load of school children is significant to their health in the same proportion as the business load is significant to the health of business men. The school child under your care is entiltled to your consideration of the school program he is carrying.

State school laws control the school program to some extent, but not so drastically that individual modifications cannot be made. Laws have not been written that take into consideration individual differences. One of the greatest challenges to education today is to individualize school procedures. If a school program is to meet the requirements and needs of children, it must be individualized to their differences. If the school in your community is to function adequately in all the phases of its contribution to its pupils, it must have guidance and leadership from outside sources. The physician must make his contribution by giving his leadership and guidance to the schools in his community.

Guidance in educational progress of children in the schools must be controlled by educators, for they are trained for this purpose; but control of the health and physical welfare of these children belongs to the physician. A child attending school handicapped with physical defects should not be expected to compete with pupils who are in good health. The removal of these handicaps

†This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

is the responsibility of the physicians under whose care these children have been placed. If a physical defect is not remediable, the child should be encouraged to compensate for it. Some of our greatest men and women have overcome handicaps from childhood; but most children, unless unusually superior, are retarded by them.

When the handicap is not removable and the child is unable to compensate for it, the problem can be attacked from another angle. Modify the pupil's school program to fit his needs. It is far wiser to set up a program that a child can successfully proceed with than to allow him to struggle with an overbalanced program with which he is not able to cope. He may become discouraged to the point of turning to other things for an escape or outlet.

This may mean diminishing his school program in some way. You may have his program cut down or give him a half-day program or, in cases of severe physical handicap, you may feel that the child is entitled to home tutor service with which he may remain at home. You will find that some children who are not physically capable of carrying the usual school program will, nevertheless, make satisfactory progress with a program in which a rest period is substituted for one of the class periods, especially in the afternoon. Malnutrition cases may call for extra rest and nourishment while at school when ordered by the physician. Children with nervous symptoms who are overstimulated by extra-curricular activities often improve after diminishing these activities.

Physical education is probably the most adaptable part of the school program. Although it is usually a required course, it is elastic enough in most schools to offer modified physical activity when indicated. Physical education instructors, for the most part, are more interested in the physical welfare of the pupils than are other teachers. A child whom you wish to have very limited physical activity, because of a cardiac or other defect, may be appointed monitor by the physical education instructor at your request. While acting as monitor the child will be spared competitive physical activity, yet receive the socializing values of his contacts with other pupils. Arrangements may be made with the physical education instructor to carry out a special program for any type of physical defect you may have under your care. Schools in which the welfare of the pupils is held above the importance of physical activities will arrange a rest period in place of the physical education period for a pupil when prescribed by a physician, and allow credit for the period.

Physical education instructors may ask, as a return favor, that physicians shall not give physical education excuses promiscuously to pupils who seek them on bases that are not reasonable. This control is necessary for honest coöperation in the best interests of the pupils.

Contact your schools more. Communicate with the teacher or principal by telephone or letter, or let the leader of the school health program know the individual needs of your patient. The schools are becoming more interested in the all-round development of pupils, and will be grateful for your interest and recommendations.

825 Union Street.

G. G. Wetherill,
San Diego.

MISTAKES REGARDING VARICOSE VEINS

In injecting varicose veins, withdrawal of blood into the syringe does not prove that the needle is inside the lumen of the vein. Not infrequently the needle may tear the tissue-paper walls of thin veins and cause the blood to be extravasated. This extravasated blood may be aspirated in considerable amounts while the needle is outside the vein, and, if injection is made, sloughs may result!

Phlegmasia alba dolens is far more likely to occur in varicose veins than in normal veins, and cannot occur in veins which have been destroyed by fibrosis and are no longer existent. For this reason, a well-administered injection of varicose veins in pregnancy is a protection against phlegmasia alba dolens. The presence of untreated varicose veins predisposes to milk-leg after delivery; because stasis, as found in varicose veins, is a major factor in causing phlebitis. Injection of veins is indicated in some of the pregnancy patients.

We need to revise our teaching as to the avoidance of round garters in the prevention of varicose veins: Roentgenographic study of radio-opaque substances injected into the veins of the arm and leg shows that the circulation in the superficial veins of the leg is entirely different from that in the arm. When injected into the veins of the wrist, the blood flows upward toward the heart at such a high rate of speed that one must be quick to catch a roentgen shadow of the radio-opaque substance. In the legs, however, the circulation in the superficial veins often is stationary or in a retrograde direction downward toward the feet, until an important communicating vein is reached, through which the blood, by the same roentgenographic study, is shown to pass inward to the deep veins between the tibia and fibula. This has been proved many times.[1] In the deep veins the circulation back to the heart is rapid, and studies of freshly amputated legs show that even very strong circular pressure on the outside of the leg does not obstruct the flow of fluid in the deep veins between the bones, for here they are very thoroughly padded by the deep muscles and by the bones themselves. Round garters cannot obstruct the flow upward in the deep veins, and may be of actual advantage in relieving downward hydrostatic pressure on the unsupported walls of the superficial veins.

Indeed, ever since the Middle Ages, it has been known that pressure on the superficial veins, as by a vein truss or strips of adhesive, or by elastic bandage, relieved varicose veins because it holds up the hydrostatic pressure of the blood. Round garters are probably of actual advantage in cases of bad varicose veins with incompetent venous

1 Kilbourne, Norman J.: Varicose Veins of Pregnancy, Am. J. Obst. and Gynec., 25:104 (Jan.), 1933.

valves, as the garters hold back this hydrostatic pressure.

High ligation of the saphenous is not a cure-all; in fact, it is only rarely to be advocated. Recent enthusiasm for this operation is not based on historical studies: years ago it was shown that high ligation is permanently successful in only 28 per cent of cases, and is not as likely to result in cure as injection.[2] This operation of high ligation is known as the Trendelenburg operation for varicose veins. The Trendelenburg test is the test to show whether or not the Trendelenburg operation will succeed. It is only if the Trendelenburg test shows that the valves between the superficial veins and the deep veins in the calf are competent, that the operation will succeed.[3]

A history of phlebitis does not mean that the deep veins continue to be obliterated. I have yet to see a case where I was convinced that the deep femoral vein remained obliterated over a long period of time. Permanent edema is more likely to be due to perivascular lymphangitis. The greatest danger lies in injection of cases of thromboangiitis obliterans or in cases of arteriosclerosis obliterans.

The injection of varicose veins is not likely to cause pulmonary embolism. In my own experience, covering over 25,000 injections, I have seen only two cases of pulmonary embolism. Both of these recovered after a short illness. Both also occurred years ago at the time of the use of weakly sclerosing solutions, and I have had no cases occurring with modern solutions.

2007 Wilshire Boulevard.

N. J. Kilbourne,
Los Angeles.

THE LIBRARY MEMORIAL FUND AND THE LIBRARY ASSOCIATES OF THE LOS ANGELES COUNTY MEDICAL ASSOCIATION

With the taking over of the Barlow Medical Library by the Los Angeles County Medical Association, and its removal to new quarters, the immediate and most pressing of its needs—more space—was fulfilled. But a library needs more than space. It needs physical equipment, librarians, current periodicals and current texts. The responsibility for providing these was assumed, of course, by the County Society. For the present, then, the material needs of the library are being met.

As for the future, and for what might be called the spiritual needs of the library, no provision had been made. A library must be more than a convenient and accessible storage place for books. It must be a living, growing servant of its community. It must have a spiritual, as well as a physical identity. It must have character, and it must impress this character on the community which it serves. To create these attributes, a group, the Library Associates of the Los Angeles County Medical Association, was organized, and to that end the Associates are publishing, in the Los Angeles County Society Bulletin, a series of descriptions of the library's most interesting books, while planning to hold exhibitions of medical, historical, and bibliographic material. Definite efforts, also, are being made to make the study of the history of medicine an important part of its activities. This is intended not only to give vent to the interests of those historically inclined, but also to emphasize the fact that books of historical interest are not merely embellishments of a library's equipment, but a most important factor in creating the character that was spoken of before.

Since but little provision was made for the purchase of materials and books of purely historical interest, the Library Associates have created a Library Memorial Fund, and members of the County Society are urged to send to this fund what moneys perhaps would otherwise be spent on flowers for a deceased member. Acknowledgment of the gift is then sent to the relatives. Thus, instead of ephemeral flowers, a permanent memorial is established. Bookplates identifying the purchases made from the Memorial Fund insure the permanency of the memorial.

To the Memorial Fund will also be added such other gifts and bequests of money, books, instruments and the like as may be the Fund's good fortune to receive. The Library Associates hope to make the library "not a luxury, but a necessity of life."

Form for Contribution

To the Library Memorial Fund
Los Angeles County Medical Association
1925 Wilshire Boulevard

..... $.....
In Memory of .....
Please send a card of acknowledgment to
.....

Form for Bequest

I hereby give, devise, and bequeath to the Los Angeles County Medical Association, a nonprofit corporation, the following described property: [books, money, etc.] to be administered as part of that corporation's Library Memorial Fund, and to be known as the [here insert name desired] Memorial.

672 South Westlake Avenue.

Hyman Miller,
Los Angeles.

In all of the 160 years of American history, only 244,000 American soldiers have been killed on the field of battle or died from wounds obtained while fighting in our wars. In the past twenty-five years more than 375,000 American mothers have died from causes associated with childbirth. During this same twentieth century period, the American records of the highest maternal death rate in the world save Scotland have remained constant. By this women can be made to understand that prenatal care is urgent in the second and third month instead of the seventh, where records prove it usually begins. Then a tremendous advance has been made toward reducing maternal mortality.—*The Commentator.*

2 Berntsen, A.: Nordiskt Med. Arkiv., 62:61, 1927.
3 Trendelenburg: Beitr. z. Klin. Chir., 7:195, 1890.

ORIGINAL ARTICLES

THE EDUCATION OF A DERMATOLOGIST*

By Thomas J. Clark, M.D.
Oakland

THE requirements in education fitting an individual to practice medicine today are necessarily centered about the studies that develop facts in chemistry, physics, anatomy, physiology, biology, pharmacology, etc. Anticipating the special medical preparation, the quality of the training which the student receives in high school, and in the academic college, largely determines his final success in medicine. This foundation work orients the student as a social unit with reference to the past, the present, and the future. In brief, it breaks away the protective shell of his youth, allowing him to go forth to explore the world.

We are all creatures of habit actions. These rule-o'-thumb, or automatic actions. will satisfy in most of our problems; but to direct the successful outcome in many other situations, real thinking is necessary to form a judgment for particularized action.

PRIMARY TRAINING

Educators in our high schools and colleges are at more or less variance as to the selection of material that best suits the purpose of mind development, by increasing a student's knowledge of reading, writing, and arithmetic. This primary training of his mind consists of observation, recording the observations, the realization of a problem and taking the logical steps for the solution of the problem. The youth has environmental forces that elders help him to overcome; but in this helping process it is vital to draw him out so that he may shoulder his responsibilities, thereby building up his courage to overcome difficulties and increasing his confidence in his own abilities.

ACADEMIC TRAINING

To enlarge the scope of his mind and educate him, the academic colleges offer to the student a varied list of courses. The classics form the foundation for these courses. These works of outstanding individuals are the priceless recorded ideas and actions of man's past. The college presidents recommend for study history, languages, literature, philosophy, psychology, mathematics, science, religion, and government, to which are necessarily added physical training and sport. Four years of attention to such mental and physical discipline will give a broad view of life and provide a fund of facts for the student to mull over and form ideas of his own. He should now be able to think clearly and make decisions of value to himself and others. During vacation intervals, valuable manual training can be secured in work that will add to his experience both pleasure and profit.

* Chairman's address, Dermatology and Syphilology Section of the California Medical Association, at the sixty-sixth annual session, Del Monte, May 2–6, 1937.

MEDICAL EDUCATION

If the student has now made his decision to become a physician, he is confronted with the choice of a medical institution. This question is answered, for the majority of students, by economic necessities. However, at the present time, excellent facilities are available throughout the United States in all population centers. Fine buildings and elaborate equipment do not of themselves offer advantages: good teachers are essential. Small classes give more personal contact, arousing interest and enthusiasm for the work at hand. During the first two years of the medical course, the factual material is voluminous, with some relief to its monotony by laboratory work. Friendly groups of fellow students may organize quiz meets for work in anatomy, physiology, bacteriology, etc., thereby profiting by offhand talks among themselves. Constant repetition is desirable.

Early in his career as a medical student the use of a microscope will offer an incentive to form a collection of specimens that are made for study purposes. Carefully prepared, such specimens will form the nucleus of a valuable personal museum for his use in repeated study and comparison. Gross specimens in anatomy should be secured and added to this museum. The art of photography is always an aid. The practice of making drawings of physiological experiments, with full written notes, can be made the threshold for the writing of clinical histories.

In the courses for study, during the third and fourth years, a choice will be allowed. It would be well to select those that add to the broad science base upon which the art of medicine is erected rather than too early study of specialized work. Physical examination of patients early and often should be encouraged so that the memory picture of the normal body organs will become fixed. Laboratory work in all the standard routines must be mastered, leaving theoretical data gathering to some future opportune time.

A nucleus of his medical library can be started during his student days that brings into play the joyful habit of adding regularly, volume after volume, to the end of his days. The crowding of his study time should not exclude a portion for medical history. Learning the lives and work of the men who have overcome great difficulties to advance our knowledge of scientific foundations for the use of medicine is truly inspirational.

INTERNSHIP

The year of internship should by preference be taken in a general hospital where the different services are conducted by a staff of specialists. Appointment to a hospital other than that of his Alma Mater offers opportunity to receive instruction under the guidance of a new set of teachers who probably will inspire enthusiasm from angles other than formerly.

In this hospital year, the student comes more in contact with the applied knowledge of medical training. His efforts should be directed to three main objectives: first, making himself competent to examine a patient, to enable him to arrive at a

diagnosis in order that satisfactory treatment may be ordered; second, a review of the theoretical medical teachings of his collegiate courses, preparatory for the examination by a State Board granting him legal status to practice his profession; third, the tentative choosing of his future specialty in medical work. This decision to limit his study to a certain specialized branch of medicine should not be followed up too exclusively as yet, but rather in the sense of a gradual leaning toward, or forethought for, his chosen line.

COMMENT

Let us now briefly survey the results in the metamorphosis of our dermatologist. He has first been a student of general learning to fit himself into the scheme of society as one of its units. He has thought out his plan of life, making a decision to study medicine, and has devoted four years in the theoretical studies of those sciences that form the basis for proficiency of action in the practice of medicine. He has served his year of practice under guidance as an intern in a general hospital of his choice. He has passed the legal tests establishing his competence in his profession. He has also made the fateful decision to further study in order to practice in his mature years the art of dermatology. What now to do? Is it best to continue as a student seeking his postgraduate dermatological training in the succeeding two or three years, or shall it be a putting off of his student robes for the actual service in medicine? The answer should come from the necessities of the work in treating skin diseases. Those of experience know how essential it is for the dermatologist to have a comprehensive understanding of the body as a unit in forming his judgments in etiology, diagnosis, prognosis, and treatment. John Hunter, in the past, said to Jenner, "Don't think—try!" Jenner wisely took his advice and practiced the art of inoculation in the early work of prophylaxis. Our student surely will profit if he does likewise, going into general medical practice for a period, let us say, of four years. These years of application of his theoretical knowledge will give him finesse in the psychology of his work, will ripen his judgment, give him more independence and, most valuable of all, heighten his powers to think clearly.

VALUE OF EXPERIENCE IN GENERAL PRACTICE

In a conversation with Professor Erich Hoffmann of Bonn, Germany, during his recent visit to San Francisco, he strongly advised the experience of general practice before taking up postgraduate work in dermatology. He mentioned his own experience of several years' work in the army, where he did general medical work, later taking up dermatology.

Having passed all of his tests and been received into the medical profession as a legal practitioner of the art, our fledgling doctor will be wise to avoid the many beckoning pitfalls. He is now a professional man, with service his watchword, to build an honorable reputation. His education has fitted him to form a judgment for action based upon a knowledge of the facts at hand, carefully thought out, against the alternatives. He should have the courage of his convictions, and guard his actions for the highest service to be rendered to his patients. The Hippocratic oath can be lived up to and add to the stature of his reputation.

Four years of his life now devoted to the general practice of medicine provides a wide field for experiences. The application of his knowledge develops his mental capacity. The first-hand contact with his patients as "cases" fires his desire for study, and leads him on to more and more gathering of knowledge. With careful observation of his cases, he will find his diagnostic ability improving. Rational treatment keeps gaining. A study of his mistakes jolts him to a higher plane. He will act wisely if he calls, for counsel, men of experience to help guide his actions in difficult cases. This is true both to gain the knowledge of a more experienced fellow practitioner and to have his comforting support for the grave responsibility the case entails.

The horizon of his medical life keeps extending by making it his duty to accept service in the local clinics and hospitals, where he will see many patients that provide material for study.

Coöperation can be given to the medical societies, with friendly help in any division of their activities. These contacts with others in his profession make him realize that it is not he alone who must work and serve to accomplish the duties of the passing days.

Subscriptions to journals and medical literature are a necessary part of his equipment. Medical libraries provide a wider field to be made use of on occasion, but cannot take the place of the handy journal or book in the office or home.

DERMATOLOGY IN GENERAL PRACTICE

In the general practice of medicine there will be many opportunities to observe and study examples of common diseases affecting the skin. By carefully noticing the type of lesions of primary nature with their successive changes and variation to their final resolution, one fixes the "clinical picture" in his mind, thus making for proficiency in diagnosis. Opportunities will not be lacking to study scabies, the pyodermias, eczemas, psoriasis, urticarias, contact dermatitis, lues in many manifestations, nevi, epitheliomata, the keratoses, the exanthemata, and probably many more. He will soon discover that very careful observation of the objective symptoms is a primary requisite to even a group diagnosis of skin diseases. As for treatment, it will be a puzzle that can be solved only by referring the patient to a dermatologist. The conscientious general practitioner will soon learn his limitations and, by consultation in his difficult problems or referring the patient to the proper specialist, he adds to his reputation for service.

POSTGRADUATE TRAINING

Now that our candidate has thoroughly prepared himself in the firm foundations of medicine he can much more readily appreciate and absorb the postgraduate instruction.

The universities in America now offer courses in postgraduate dermatology of the highest stand-

ards, making it feasible for a student to secure in all branches the training that will establish his competence in his specialty before a trial board.

It is advisable to take this work in the large centers such as Chicago, St. Louis, Boston, New York, Philadelphia, or Baltimore.

AN OUTLINE OF A YEAR'S WORK

The outline of a year's work would be made up with this schedule for the first six months:

1. Anatomy, physiology, and embryology of the skin.
2. Parasitology of the skin, including bacteriology and mycology, and the defensive mechanisms.
3. Biology and chemistry of the skin.
4. Photography of skin diseases.

For the last six months, the following:

1. Clinical dermatology, with differential diagnosis.
2. Therapeutic measure for skin diseases, including the use of physical agents, x-ray, radium, etc.
3. Studies in diet and the chemistry of diets.
4. Pathological studies of the skin.
5. Preparation of moulages.

EUROPEAN SCHOOLS

Having completed these courses, our candidate for high professional attainments envisions material in plenty to practice upon. Now would be the opportune time to take a trip abroad: for the density of the population in the European nations makes possible unlimited material for clinical study.

Time is precious; however, the broadening of understanding one attains by travel and study in different centers highly repays the effort spent at this point in the student's career. Valuable work can be seen and profitable study made of it in London, Paris, Berlin, and Vienna. In a few weeks' time, at each of such places a wonderful amount of clinical material can be examined and classified, and pathological data secured. Well-trained men differ in their approach to a problem. They probably will agree as to a diagnosis, however; in treatment methods they will vary, and the student, seeing work in various clinics, may now form his own opinion to attain the best results.

IN CONCLUSION

Our dermatologist is now thirty years of age, and is prepared to seek a field of practice where he can be assured of a successful career. In concluding, one may say with assurance, that time and patience, with efficient effort, are required to attain the knowledge for proficiency in treating skin diseases. It is necessary to realize that the work is in a competitive field, with the rewards coming to those individuals who are most competent. The highest professional and ethical standards are fundamental in the contact with patients and brother practitioners. The training of a dermatologist can be spoken of as a necessary public service, the character of the work being such that the other departments of medicine are not fitted to successfully treat these cases. It is a wide field for endeavor, skin diseases being a common illness.

400 Twenty-ninth Street.

HEALTH DEPARTMENT REMEDIES FOR SICK HOUSING*

By J. C. Geiger, M.D.
San Francisco

Discussion *by Walter M. Dickie, M.D., San Francisco; George Parrish, M.D., Los Angeles; Alex M. Lesem, M.D., San Diego.*

FOR many years departments of public health have condemned dwellings as unfit for human habitation, and places of business as insanitary and rodent-infested. In a sense, then, the efforts applied by departments of public health to the problems of housing and health have been negative and destructive.

When we have a polluted well and persons drink water from this well, the usual health procedure is to close the well. Likewise, when milk does not come up to certain bacteriologic standards and is derived from sick animals, namely, animals that have not been tested for tuberculosis, the product is usually destroyed. We recognize, however, that the best plan for the community is a chlorinated water supply, sometimes reinforced by filtration, and a pasteurized milk supply, obtained from healthy animals.

If a health department decides in its wisdom to destroy tenements that are unfit for human dwellings, then it is equally logical to demand decent dwellings for replacement.

THE AMERICAN HOUSING PROBLEM

To the average health officers of American cities the problem quite often presents difficulties; and it is no novelty that some of these difficulties may result in political backfires.

Many of these dwellings are the forgotten houses, derelicts from the past, forsaken by their owners and left as decaying, run-down structures, where people of low incomes must live. They are the first cousins to the slum tenements: blights on the city—socially, economically, and from the standpoint of public health.

America has always had a consciousness toward slums, and there is seen today a dawning perception of our inherent right to decent conditions of living. Bad housing conditions must have cost this nation so much that posterity cannot begin to liquidate the debt. The vast army of the unemployed may always remain industrially inefficient because of disadvantageous living conditions. Forbidding atmospheres of the home, the school, and the shop may exert themselves in many problems, even to become a cause of inebriety. A safe water and milk supply, and proper sewage disposal, are among the best assets a city can have.

IS HOUSING A MAJOR PUBLIC HEALTH PROBLEM?

The question naturally presents itself, "Can housing be accepted as a major public health problem?"

* From the office of the Director of Public Health, City and County of San Francisco.

Although it would seem no one could possibly question the necessity of fresh air and sunlight, yet there are found apartment houses being built with dark rooms for no other reason than that it is easier to do it that way. To prohibit any room of any building without outside light and air runs counter to that intense individualistic attribute to cover every foot of the land, irrrespective of value. The smaller the geographical area of cities the more crowded the living conditions are apt to be found. Here the playgrounds and social centers should be distributed and made available. These civic necessities will cost the city less in police and jails, and less in hospitals and relief.

There are statistics available, especially as to district mortality, in Cleveland and Detroit, which demonstrate that there is a definite relationship between bad housing and high death rates. One must not assume, however, that such death rates are entirely due to housing. These crowded areas, with crowded tenements, are filled with persons of the lower income groups, and in many of these persons there is a definite physical and mental inadequacy which may contribute to these excessive mortality rates. The experience in Liverpool, when contrasts were made to slum areas and suitable tenements, there were definite lowered death rates and infant mortality, and tuberculosis in the latter.

However, there is another side to the picture: that new houses may involve higher rents and, therefore, limited food supplies, and any effects of good housing may be unbalanced by the bad effects of insufficient food.

The forgotten house, with its insanitary toilets, and sometimes its overflowing cesspools, its overcrowding, the lack of light and air, the coldness and the dampness, the lack of screening against mosquitoes and flies, and the fire and accident hazards, all lead to a higher mortality. Too often we regard public health as a process measured by a statistical yardstick. There is more to health than just remaining alive. There should be that fullness of life in which the statement has been made by one of our philosophers that simply to live, move, and breathe should be a delight.

ILL EFFECTS OF POOR HOUSING CONDITIONS

Undernourishment causes lowered vitality; living in overheated atmospheres decreases efficiency; excessive odors do interfere with appetites and cause mental disturbances; inadequate illumination often depresses, overcrowded conditions are attractive neither morally, physically, nor mentally, and the unattractive home increases juvenile delinquency. There must be certain essentials to a sound family life, and today one hears the expression that the American home is the automobile or, at least, a trailer.

It is a fact that San Francisco represents more than any other city, excepting perhaps a few, a concentration of population in more or less restricted areas, which results in the overcrowding of the lot and block areas of these respective districts.

Health officers have long recognized the intimate relationship which overcrowding bears to health. There is little doubt in the minds of sanitarians that poor housing is conducive to lowered vitality. Overcrowding is directly related to high infant mortality. When there is more than one person per room, infant mortality may rise even 50 per cent greater than in areas in which there is more than one person per room. Increased incidence of disease, particularly influenza and pneumonia in the winter months, is a regular occurrence in the crowded areas.

OVERCROWDING

Overcrowding means close contact. Close contact propagates and assists in the spread of tuberculosis, making it impossible to segregate the patient and thus protect other members of the family. All communicable disease is helped to spread by overcrowding, and this is particularly true of influenza and pneumonia. Overcrowding bears an important relationship to the spread of social diseases, and also contributes to mental and moral delinquency.

What is the remedy for overcrowding?

We must encourage the construction of individual dwellings as opposed to the multiple type dwelling. The single or two-family house with surrounding yard space does reduce overcrowding. Adequate light and ventilation are more readily obtained. Yard space invites people to spend more time in the open. Children can play out of doors. In the multiple dwelling, covering most of the lot space, the growing child must remain indoors or play in the streets. The latter is an unfavorable environment, as it increases street accidents and affects not only the physical but the moral background of the child.

It is true that single dwellings must be built in the outlying sections and, therefore, adequate transportation is an interesting factor in promoting public health. Unfortunately, from time immemorial property has stood the brunt of government regulations. Taxes mount; the property owner must increase his return. This he does. As taxes mount upward, the buildings mount upward, there being a necessity for the greatest possible monetary return and, therefore, greater human occupancy of small portions of land.

It can be considered that there is abnormal overcrowding in practically every city in this great America. As a result, families may be forced into insanitary and dangerous quarters. It is not difficult to recognize that health authorities are powerless to vacate such premises under the present economic conditions. Sometimes there are no places better or even as good to which these families can move.

FEDERAL COÖPERATION IN SLUM CLEARING

Apparently the Federal Government is trying to correct the conspicuous lack of coördination which has been manifest in America. It is attempting to reach a solution of our housing problem in order to remedy the conditions which not only may affect the health of the people, but also

the stability of our government. Every American should have a plot of ground and a breathing space for the promotion of health, if health is to be promoted.

The term "slum clearance" is quite obnoxious to many people, particularly to the dweller in the city. The low-cost and low-rent houses under federal auspices, or through philanthropic foundations, or limited dividend companies, should be a reality. There is no better reason from a public standpoint why the state as well as the city should not offer some way of subsidizing homes for the poor. This has been true both in England and Germany, which have made substantial progress in this direction. The lack of any consistent program in the United States is a striking contrast to what has been accomplished in Europe and on other continents of the world. It cannot be said up to the present that the United States has any housing program whatever, and quite often the new dwelling units erected in a city do not reach in numbers the homes that have been destroyed by fire.

GOVERNMENTAL AGENCIES AND HOUSING PROBLEMS

The difficulty with us apparently is that we are romantic enough to cling to the individualism of the past and think that all the housing problems can be solved by private commercial enterprise. It may be brutal to assert that in some of our populations the income is too low to permit housing of the standards of health that we desire. Either the lower income groups must have wages raised, the standards to be set by the Government, or the Government must subsidize housing for this lower income group. If such be the case, then there is need for a permanent Federal Housing Agency to stimulate and coördinate local initiative. It has been estimated that there is need for at least six million low-cost dwelling units, and just to build a few of these at a few thousand dollars apiece would call for federal expenditures in billions of dollars.

Not only should the Federal Government realize what the problem means, but likewise should the state and the city. To build a house is not satisfactory to the health officer. The house must be correlated with town planning, with the type of architecture, with heating, ventilation, lighting and with home safety. An intelligent community today seeks pure milk, pure water; it knows the value of diphtheria immunization, knows the problem of the control of tuberculosis, and is now beginning to understand the problems of syphilis, and that our efforts for suitable hygienic houses for American people is well worth while.

CITY AND COUNTY OF SAN FRANCISCO

The city and county of San Francisco has in the last ten years, through its Department of Public Health, condemned and destroyed 2,100 buildings, and there remains an estimate of 475 buildings yet to come down. The outlook for the future of the sanitary science relating to housing is hopeful, and San Francisco may lift this community necessity out of the dark ages and lead all America. After all, sanitation and good housing are man's best defense against his surroundings, and even his financial adversities.

In many large health departments this problem of housing has many heterogeneous factors, and there must be a special department to deal with them. It is often difficult to get people to realize how important the subject really is. Housing in the dictionary means something to do with the trapping of a horse. We must all realize, however, that housing has something to do with habitation of human beings, and the subject must be approached from a public health, social, economic, architectural, and structural viewpoint.

Civic Center.

DISCUSSION

Walter M. Dickie, M. D. (State Building, San Francisco).—The relation of bad housing to tuberculosis was recognized early in the organized campaign to control that disease. It is only recently that proper recognition has been given to the part that bad housing plays in the incidence of other diseases. This applies not only to those diseases that are grounded in faulty social conditions, but also to those that are spread by contact—common colds, influenza, epidemic meningitis, and the respiratory infections generally. There can be no doubt that overcrowding and opportunities for close contact with relation to faulty housing constitute important factors in the spread of communicable diseases.

Faulty housing conditions are not confined to large centers of population. High rentals have driven a considerable proportion of the urban population into the outskirts of the cities, where shacks without facilities for ordinary sanitation are built upon cheap land, and into automobile, trailer and squatter camps. Considerable difficulty is experienced by local health officers in condemning such places. The old adage, that a man's home is his castle, applies to both palace and hovel. Progress is being made, however, in cleaning up these settlements; the menace of typhoid fever alone warranting continued activities in their abatement.

Faulty housing, in general, is based upon a reduced economic situation, and the cycles of prosperity bring new buildings to occupy the positions occupied by the old dilapidated structures. The progressive health officer, therefore, is able to accomplish much in the elimination of dark, insanitary tenements and, as a result, the general health of the community is bound to improve.

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George Parrish, M. D. (2188 Live Oak Drive, Los Angeles).—Dr. J. C. Geiger, San Francisco Health Officer, has selected a major health subject and handled it in authoritative fashion.

Primarily, bad housing leads to the downfall of more people than all other causes. There can be no question but the three great scourges of mankind—poverty, disease, and crime—are in a measure due to bad housing. In order to successfully combat bad housing, crime, disease, and poverty, one must understand their relationship. Living in a house that is damp or dark, or has a defective lighting system, or bad plumbing, or is poorly ventilated, lowers resistance to disease. Too many families in one building, or the crowding in rooms through ignorance or racial habit, breeds familiarity and crime. Have you ever thought of the crimes arising from such places? No doubt the poet must have had in mind just such institutions when he wrote:

> "Vice is a monster of so wondrous mien,
> As, to be hated, needs but to be seen;
> Yet seen too oft, familiar with her face,
> We first endure, then pity, then embrace."

Keepers of penitentiaries, and superintendents of reform schools will tell you that crime is due to lowered resistance, low vitality, and to minds overclouded by brooding among shadows. The relationship of housing to vice is that

the dark room is the mother of shame. Congestion makes vice inevitable. Promiscuous living promotes vice. The child of the slums is educated in the school of vice.

In the ramshackle, gloomy, dirty house, there is everything to degrade, everything to suggest and foster crime. Better and cleaner homes are essential to good health and happiness.

Housing has an intimate relation to health. Housing influences morbidity (sickness) and mortality, but in a rather indirect way. It is hard to separate the factors of crowding, personal habit, poverty, food, and other hygienic and sanitary influences from housing conditions. Housing conditions may be taken as an index to the hygienic habits of the occupants. Although housing is largely a social and economic problem, such an authority as Milton S. Rosenau believes its supervision should come under the purview of good health administration.

Good housing includes a consideration of construction, site, soil, drainage and dryness, water and wastes, lighting, heating, ventilation, size, arrangement and use of rooms, facilities for cleanliness.

It has long been realized, even before the reasons were understood, that the incidence to tuberculosis diminishes with improvement in housing conditions. This is a common observation in the stabling of cattle, as well as the domiciling of man. In addition to raising the standard of living, better houses lessen the chances of contact infection, afford better air and more sunshine, and tend generally to the well-being and uplift of mankind. House infection is only contact infection. Municipalities do well to enact and enforce stringent laws regulating the construction of houses, offices, stores, and warehouses. Congested and squalid slums are a disgrace and a menace.

Germs are social climbers, and many a palace is invaded with an infection from a near-by alley. Philanthropists cannot do better than assist in improving the housing conditions of the poor, and thus help the art of hygienic living.

Alex M. Lesem, M. D. (739 Fourth Avenue, San Diego).—The subject presented by Doctor Geiger clearly shows that poor housing *per se* is not definitely responsible for sickness and death, and that bad housing and mortality rates are not necessarily related. There must be a combination of the following conditions: (1) Bad housing; (2) Insanitary conditions; (3) Poverty; (4) Ignorance; (5) Social maladjustments; (6) Delinquencies; (7) Unsatisfactory labor conditions in industry; (2) Racial conditions chiefly related to immigration, and failure of the individual to adapt himself to a new environment.

The rapid increase in population of our California cities has added another problem. The establishment of manufacturing plants, grouped together in industrial centers without planning for satisfactory housing conditions of the employees, and particularly the lack of cheap transportation for the worker to and from the factory is a great problem. Lack of adequate transportation is a big factor in preventing the worker from placing his family in a more desirable sanitary and healthful environment.

The Health Department has no satisfactory remedy.

An educational program comprehensive in scope and directed toward community and personal hygiene has met with very limited success in correcting the bad housing conditions.

Condemning insanitary dwellings has not solved the problem, as the occupant often moves from bad to worse conditions.

The remedy can be solved only by a combined effort of the various civic and governmental agencies, interested in a remedy for the health hazards, economic, social and other maladjustments associated with insanitary housing problems.

Comprehensive planning for the prevention of recurrences of the present deplorable conditions should be undertaken. This will require a correlation of the efforts of health departments, planning commissions and other civic and governmental agencies. The responsibility of industry should be awakened to the necessity of locating factories accessible to the homes of the workers, in respect to cheap transportation and moderately priced homes, with good sanitary environment.

Health departments functioning in metropolitan areas with a high assessed valuation and low governmental per capita costs, have been more successful in alleviating insanitary housing conditions than other health organizations set up in a sparsely settled community, with low average assessed valuation and high governmental per capita costs. The latter must secure state and federal aid if immediate relief is contemplated.

The city of San Diego represents a typical picture of the average low assessed valuation group of cities. The Census estimate is approximately 172,000, but at certain seasons the post office serves a population of over 190,000. This large fluctuating population presents not only a housing problem, but a serious health problem in regard to epidemics. The tourist or transient represents a cross section of every walk of life, some seeking recreation, others employment, while still others looking for material relief or benefits from a favorable climate. Recently an outbreak of smallpox occurred simultaneously in a first-class hotel and in a trailer camp. The trailer camp has of late been a problem for the Health Department. It is insanitary, but not to a degree that would justify condemnation or abatement proceedings.

The hotel had met all sanitary requirements, yet the spread of smallpox was more rapid and many more cases occurred in the hotel than in the trailer camp. This point merely emphasizes the fact that certain diseases bear no direct relation to insanitary conditions.

Preventive medicine and personal hygiene are important and essential where bad housing conditions exist. Health education can be disseminated by personal contact with the family through the medium of the public health nurse and sanitary official, and often the standard of living can be improved by intelligent application of public health principles.

Every health officer should have a definite picture of the type of people living in his community, considering the transient or fluctuating group, and what facilities the city offers for their housing.

The following figures for housing units in the city of San Diego clearly show the facilities available for a stable and transient population, and what might happen under extraordinary circumstances when the influx of transients exceeds the housing quota.

Permanent dwellings:	
Residences	52,000
Duplex	1,814 units
Temporary dwellings:	
Apartments	7,837 units
Flat buildings	2,561 units
Bungalow courts	2,680 units
Automobile courts	483 units
Hotel accommodations	12,270 units
Trailer camps	6
Camp grounds, including community facilities	2,451 units

Since January 1, 1934, by order of the Health Department, twenty hotels and rooming houses have been razed.

There are on file, as of January 1, 1937, one hundred and thirty notices of condemnation for dwellings unfit for human habitation, with many other sanitary improvements being held up pending some social or economic adjustment for the families occupying dwellings with inadequate sanitary facilities.

The automobile trailer is our most recent health hazard; it is the outstanding step backward in the American standard of living, and no legislative measures can be enacted with regulations too drastic for its control. These trailers are rapidly becoming a menace to traffic on the highways and a hidden source for epidemics.*

* Editor's Note.—The city of Pasadena has adopted an ordinance that provides for the sanitation of automobile-trailer camps. This measure is comprehensive; it covers sanitation, supervision, and fire protection in automobile-trailer camps. Zoning requirements, lighting, electrical connections, and limits of stay are also covered. Provision is also made for the storage of trailers on private property. Fees are provided for the maintenance of sanitation and supervision of such camps, and penalties are provided for violation of the ordinance.

PERIPHERAL VASCULAR DISTURBANCES: EVALUATION OF METHODS FOR THEIR STUDY*

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THIS paper is a review of our experiences with certain methods proposed for the study of peripheral vascular disturbances, as applied to a small but carefully studied group of representative patients. A correlation of the results will be interpreted in terms of practical application, and the indications for each method of study will be outlined.

GROUPS HERE CONSIDERED

For purpose of discussion the procedures may be divided into those which primarily measure the usual state of the circulation, and those which attempt to measure the maximum circulation possible over and above the hindrance imposed by the disease process. The first group of tests throws light upon the presence and extent of structural alterations; the second group attempts to measure the physiologic compensation for the disease process and the extent of the circulatory reserve. In most instances this resolves itself into an evaluation of the collateral circulation. There is a certain amount of overlapping in the information obtained from the application of these two groups of tests.

Group one comprises: (*a*) Oscillometry, (*b*) Arteriography, (*c*) What we have termed the "flushing time," (*d*) Production of claudication pain with the circulation free and occluded. Tests of the second group measuring the maximum possible increase in blood flow are: (*a*) Comparison of skin temperature readings at symmetrical points before and after the induction of vasodilatation, (*b*) Measurement of the digital pulse volume before and after dilatation.

The technique of each of these methods will be discussed, and the results briefly evaluated.

TESTS MEASURING THE ORDINARY STATE OF THE CIRCULATION—THE OSCILLOMETER

This instrument visually represents the amplitude of the pulse wave in the major arterial trunks. By the use of various-sized cuffs, determination may be simply and quickly made from above the knee down to and including the foot. It has been our experience that simple palpation of the accessible arteries is frequently misleading in normal persons in whom the dorsalis pedis or the posterior tibial pulses occasionally are not evident to the finger. The oscillometer has never failed to give a satisfactory reading in such individuals. Its primary usefulness, however, is in ascertaining the presence of a pulse wave in portions of the arterial trunks, which cannot be palpated. This makes it possible to both identify and locate partial or complete arterial block by the sudden fall-off or cessation of the needle movement as the cuff is moved down the extremity. It should be remembered that a non-pulsating artery is not necessarily totally occluded, and hence such a finding must be interpreted with some caution. Occasionally extremely high readings are found above the point of block, and this may be helpful as confirmatory evidence. We do not believe that the oscillometer readings can be interpreted in terms of the kind of arteriosclerosis present as is contended by Friedlander.[1] Nor do we feel that the instrument is of much help in differentiating between a lessening of the arterial pulse due to spasm as against organic disease. In normal individuals we have found lowering of the oscillometric readings following the induction of generalized vasodilatation.

An oscillometric survey should be given every individual suspected of having vascular disease and, as Mone Reid suggests, we feel that this instrument should be available to every physician practicing medicine or surgery.

ARTERIOGRAPHY

The introduction of a contrast medium into the arterial tree, for purposes of x-ray visualization, has in recent years found an accepted place in the study of occlusive arterial disease. Colloidal thorium dioxid, in spite of its radio-activity, has proved to be the medium of choice, principally because its use is entirely unaccompanied by immediate symptoms on the part of the patient, and extravasation may occur about the point of puncture without injury to the tissues. In our hands 15 to 20 cubic centimeters of the 25 per cent solution is ample for adequate visualization of the arterial tree of the lower extremities. The technique used is similar to that of Veal and McFetridge,[2] Allen and Camp,[3] and others, with the exception that immediately following injection of the dye and the taking of the first plate, we block the circulation above the knee by a blood-pressure cuff which allows ample time for the changing of the plates and the arrangement of the leg so that films may be obtained of the leg and foot.

The primary usefulness of arteriography is in determining the exact location of the point of narrowing or block which may exist in the major arterial trunks. It fails to demonstrate in many instances the degree and adequacy of the collateral circulation, which is better judged by other methods of investigation. In this sense the information obtained is anatomical rather than functional. It may also fail to differentiate occlusion due to spasm from that of an organic nature. Errors in technique, such as use of an inadequate amount of dye, faulty timing of the plates, etc., may lead to erroneous conclusions. If, however, these considerations are borne in mind, and the interpretation of the plates is made with due re-

* From the Peripheral Vascular Clinic of the Cottage Hospital, Santa Barbara.

Read before the General Medicine Section of the California Medical Association at the sixty-fifth annual session, Coronado, May 25–28, 1936.

TABLE 1.—*Flushing Time—Normal Arterial Circulation*

Age	Sex	Diagnosis	Symptoms Physical Findings	Oscillometric Readings		Flushing Time		Additional
				Right	Left	Right	Left	
66	M	Arthritis toe, first right	Pain Redness and warmth	Good	Good	6 sec.	6 sec.	
55	F	Hypertension		Good	Good	2 sec.	2 sec.	
55	M	Diabetic neuritis	Weakness Paresthesias, both legs	Good	Good	2 sec.	2 sec.	
71	M	Varicose veins	Edema leg, left	Good	Good	4 sec.	5 sec.	
56	M	Neuritis, femoral nerves	Bilateral pain of femoral distribution	Good	Good	2 sec.	2 sec.	
73	F	Diabetes		Good	Good	2 sec.		Left leg previously amputated. No symptoms on right. Good temperature response from induced vasodilatation.
31	M	Phlebitis calf, right	Migratory pain Tender nodules in veins	Good	Good	6 sec.	8 sec.	
60	M	Varicose veins	Bilateral varicosities	Good	Good	6 sec.	2.5 sec.	
64	M	Varicose veins	Varicosities leg with eczema, right	Good	Good	5 sec.	3 sec.	
75	F	Senility	Burning in soles of feet	Good	Good	4 sec.	4 sec.	
64	M	Hypertrophic arthritis Gout	Deformities of foot joints	Good	Good	2 sec.	3 sec.	
34	M	Normal		Good	Good	3 sec.	Not done	
30	F	Normal		Good	Good	3 sec.	3 sec.	
48	M	Thrombophlebitis	Phlebitis deep leg veins with bilateral edema	Good	Good	2.5 sec.	5 sec.	
62	M	Diabetes		Good	Good	4 sec.	4 sec.	
64	F	Thrombophlebitis	Phlebitis iliac veins with bilateral edema	Good	Good	2 sec.	2 sec.	
71	F	Hypertension		Good	Good	3 sec.	Not done	
47	M	Diabetes	Superficial infection toe, third left	Good	Good	5 sec.	6 sec.	
46	F	Neuritis	Paine forearm tender radial neuritis, right	Good	Good	4 sec.	2.5 sec.	
52	M	Varicose veins	Bilateral varicosities	Good	Good	2 sec.	2 sec.	

TABLE 2.—*Flushing Time—Arteriosclerosis*

Age	Sex	Diagnosis	Symptoms Physical Findings	Oscillometric Readings		Flushing Time		Additional
				Right	Left	Right	Left	
48	F	Intermittent claudication	Claudication pain right thigh. Absent pulses leg, right.	0—below knee	Low whole leg	T3, 4, 5, 30 sec.; T1, 2, 65 sec.	All toes 12 sec.	At autopsy occlusion right iliac artery by thrombus. Lumen right femoral one-third normal size.
73	M	Erythromelalgia	Burning pain, both feet	Fair	Fair	All toes 10 sec.	All toes 10 sec.	
76	M	Intermittent claudication	Severe claudication with sudden onset, left leg.	Good	0—below knee	All toes 10 sec.	Ankle, 40 sec.; sole, 50 sec.; T1, 240 sec.; T2, 3, 4, 270 sec.; T5, 100 sec.	
68	M	Intermittent claudication	Cold feet with mild claudication leg, left			All toes 12 sec.	All toes 15 sec.	
75	M	Intermittent claudication	Claudication calf, right	Decreased below knee 0—foot	Decreased below knee	All toes 15 sec.	All toes 7 sec.	
63	F	Diabetes	Cold feet, pain right foot. Ulcer over right external malleolus.	Good	Good	All toes 30 sec.	All toes 25 sec.	
60	F	Diabetes	Nocturnal leg cramps	Good	Decreased foot and ankle	All toes 5 sec.	T1, 30 sec.; T2, 3, 4, 5, 7 sec.	
63	M	Intermittent claudication	Bilateral claudication worse on left	Decreased below knee	0—below knee	All toes 10 sec.	All toes 22 sec.	
52	F	Diabetes and hypertension		Fair	Fair	All toes 25 sec.	All toes 12 sec.	
64	F	Diabetes		Decreased below knee		All toes 15 sec.		Left leg previously amputated.
70	M	Senility	Pain foot, left. Gangrene toe, first left.	Decreased right foot	0	Not done	T2, 3, 12 sec.; T4, 5 7 sec.	On right poor filling of vessels of T1, 2, 3, in arteriogram.
67	M	Senility	Pain both feet. Gangrene T3, left, and T2, right.	0—foot	0—foot	T1, 3, 40 sec.; T2, 4, 5, 20 sec.	T3, 4, 5, 10 sec.; T1, 2, 30 sec.	
54	M	Diabetes	Pain foot, right. Ulcer T5, right.	Good	Good	T1, 2, 3, 4, 6 sec.; T5, 18 sec.	All toes 6 sec.	
58	M	Intermittent claudication	Bilateral claudication	Decreased throughout	Decreased throughout	All toes 10 sec.	Dorsum of foot 5 sec.; toes 10 sec.	
60	M	Diabetes	Coldness of foot		Decreased leg, 0—foot		All toes 20 sec.; dorsum of foot 30 sec.	Right leg previously removed for gangrene. After induced vasodilatation, temperature of toes equal forehead.
76	F	Diabetes	Coldness and numbness of feet	Decreased throughout	Decreased throughout	T1, 4 sec.; T2, 6 sec.; T3, 10 sec.; T4, 5, 15 to 20 sec.	All toes 12 sec.	
69	M	Diabetes	Pain foot, left. Gangrene T3, left.	Decreased throughout 0—foot	0—below knee	Toes 12 sec.; heel 10 sec.	T1, 2, 4, 5, 12 sec.; heel 7 sec.	
73	F	Senility	Cold feet	0—foot	0—foot	All toes 15 sec.	All toes 15 sec.	
73	M	Diabetes	Pain foot, left. Ulcer on dorsum of foot	Decreased foot	0—foot	All toes 15 sec.	Ball of foot 13 sec.; all toes 25 sec.	
70	M	Diabetes varicosities	Pain on ball of foot, right, when walking. Bilateral varicosities without edema.	Decreased ankle 0—foot	Decreased ankle 0—foot	Pads of toes 5 sec.; dorsum toes 8 sec.	T1, 3, 4, 5, 6 sec.; T2 8 sec.	

gard to the information obtained by other methods of study, particularly oscillometry, information of inestimable value may be obtained when the question involved is that of the proper level for amputation for embolectomy. On the basis of arteriographic evidence, we have many times accomplished successful amputation below the level that would be deemed advisable on the basis of clinical observations only. This experience has been repeated so frequently that we routinely make an arteriographic study before amputation is done. In general the information obtained from the plates is in accord with that afforded by the oscillometer; but occasionally discrepancies are encountered, such as a low oscillometric index in the face of adequate filling of the vessels by the contrast medium. In such instances it is generally safe to amputate at the level suggested by the arteriogram.

We have used arteriography, but rarely in instances where surgical intervention is not necessary for the reason that, in the present inadequate state of our knowledge regarding the ultimate fate of thorium dioxid in the body, it would seem inadvisable to unnecessarily expose a patient to the possible hazard of radium poisoning in later years. This possibility should particularly be considered in younger individuals with good life expectancy. We have provisionally, until more is known regarding the innocuousness of this compound, avoided its use in these circumstances.

In summary:

Arteriographic study of an extremity is of primary usefulness in determining the level for amputation and, if properly interpreted, may be instrumental in saving a portion of an extremity which would ordinarily be sacrificed on the basis of clinical observations. It is not always a satisfactory means for adequately judging collateral circulation, or for differentiating between spasm and organic occlusion. Information obtained by arteriography should be correlated with that obtained by other methods, to avoid erroneous conclusions due to errors in technique. It probably should not be used in younger individuals with good life expectancy until more is known of its ultimate fate in the body.

FLUSHING TIME

It is well known that when the circulation to an extremity is stopped, tissue metabolites are formed which widely dilate the arterioles, so that upon release of the circulation the return of blood to the skin is signalized by a bright flush. Pickering[4] has utilized this principle for determining the patency of the arterial tree. His technique, as applied to the legs, demands the application of a blood-pressure cuff above the knee. We have introduced a modification which obviates the use of the cuff, believing that it is undesirable to compress the arteries of a diseased extremity more than is essential. After some experimentation, a technique has been perfected which is easily applicable in the office with a minimum of disturbance to the patient, as follows: The patient's feet and ankles are immersed in a bucket of water at 45 degrees centigrade for ten minutes. This usually induces pinkness of the toes even in a badly diseased extremity. Upon removal from the water the feet are immediately wrapped in heavy towels to maintain warmth, and the patient assumes a horizontal position on an examining table. After uncovering the foot, the femoral artery of the leg to be tested is compressed by the fingers at the brim of the pelvis. This is usually easy to do, although some difficulty may be encountered in obese individuals. An assistant then elevates the leg above the horizontal to about 40 degrees, where it is held until the foot becomes blanched. At this moment it is lowered to the table and the other foot is uncovered. Pressure upon the femoral artery is now released, and the time taken for the toes to flush to a color matching those of the other foot is measured by a stop watch. In a normal extremity pinkness appears evenly in all of the toes almost instantaneously, and within 4 to 6 seconds their color matches that of the other foot. The age of the individual does not alter this response. In arteriosclerosis extensive enough to cause either symptoms or signs of circulatory origin, the flushing time in our experience has always shown a delay, its distribution depending upon the location of the vascular lesion. Thus, if the disturbance affects the major trunks above the ankle, the delay in flush may be manifest in all the toes. If the vascular disease is localized to one of the smaller foot vessels, a pronounced delay may occur only in the territory fed by the diseased vessel. With occlusion of the dorsalis pedis artery, we have seen the appearance of flush over the dorsum of the foot delayed by twenty seconds or more, while the flush to the pads of the toes was completed in half that length of time. Conversely, with occlusion of the posterior tibial artery, the delay affects primarily the ventral surface of the foot. In early Buerger's disease with patent major trunks, this test has proved of particular value in disclosing the presence of a process localized in the smaller vessels of the toes. Delay in flush limited to the affected digits may be strikingly obvious. Tables 1, 2, 3 show the results obtained by this procedure as correlated with the clinical findings, oscillometric readings, etc., in normal individuals and patients with arteriosclerosis and thrombo-angiitis obliterans. We strongly recommend this procedure for routine use in the examination of such patients. It is of particular aid in making an early diagnosis, and, in combination with the oscillometer, gives an excellent idea of the extent and location of the vascular lesion.

PRODUCTION OF CLAUDICATION PAIN WITH THE CIRCULATION FREE AND OCCLUDED

The pain of intermittent claudication is confused with that due to arch strain, rheumatism, neuritis, etc., with surprising frequency, particularly if these disturbances are present in a patient having vascular disease. It is of value to reproduce claudication pain in the following manner: The patient lies on a bed, with the feet elevated by two pillows, and, in time to a metronome, the feet are flexed and extended once per second.

Many normal individuals, under these circumstances, will develop pain of the anterior tibial group of muscles in about one minute, but they are able to continue the exercise for several minutes before being stopped by pain and/or fatigue. The individual with claudication will experience an earlier onset of the pain and it will develop so rapidly that he is forced to stop the exercise within a comparatively short length of time. It should be emphasized that the pain will appear first in the anterior tibial group of muscles rather than in the calf, where it is usually felt. But the patient will describe it as being identical in character, except as to location, with that from which he suffers. If, now, his circulation be occluded by a cuff, the state of intolerable pain will be reached more quickly, and the difference between his exercise tolerance under these two sets of circumstances is a rough indication of the degree of circulatory insufficiency. Furthermore, upon release of the cuff, his pain will subside slowly over a period of forty seconds or more; whereas the pain in the leg of a normal individual fades within ten to fifteen seconds. The accompanying example (Table 4) illustrates this. Not only is the diagnosis of claudication thus confirmed, but the test may be frequently repeated in a given case to measure the efficacy of therapeutic endeavor.

TABLE 3.—*Flushing Time—Thrombo-angiitis Obliterans*

Age	Sex	Diagnosis	Symptoms Physical Findings	Oscillometric Readings		Flushing Time		Additional
				Right	Left	Right	Left	
45	M	Thrombo-angiitis obliterans	Bilateral intermittent claudication. Some rest pain in feet. Ulcer on T4 and 5, left	Decreased below knee 0 - foot	Decreased below knee 0 - foot	T1, 30 sec.; T2, 40 sec.; T3, 4, 5, 17 sec.; and the dorsum of the foot 25	T1, 2, 3, 20 sec.; T4, 80 sec.; T5, 9 sec.; and dorsum of foot 9	Arteriogram of right leg shows no filling of dorsalis pedis or digital vessels. After induced vasodilatation, right toes 10.0 degrees below forehead temperature; left 2.0 degrees.
44	M	Thrombo-angiitis obliterans	Intermittent claudication right leg. Rest pain. Gangrene T1, right	Decreased below knee 0 - ankle and foot	Good	T2, 3, 180 sec.; T4, 120 sec.; T5, 60 sec.	All toes 5 sec.	Arteriogram shows block of both tibial vessels, checked by dissected specimen. After induced vasodilatation, temperature of right toes 8.0 degrees below forehead.
31	M	Thrombo-angiitis obliterans	No symptoms. Healed ulcer T1, right	Decreased ankle and foot	Decreased foot	T1, 75 sec.; T2, 3, 130 sec.; T4, 25 sec.; T5, 20 sec.	T1, 45 sec.; T2, 3, 60 sec.; T4, 5, 25 sec.	After induced vasodilatation, toes of right foot 7.0 degrees below forehead temperature; left, 6.0 degrees.
38	M	Thrombo-angiitis obliterans	Pain T2, left, of short duration, with swelling and redness	Slight decrease below knee	Slight decrease below knee	All toes 6 sec.	T1, 2, 5, 3 sec.; T3, 4, 25 sec.	After induced vasodilatation, toes of both feet are 2.0 degrees below forehead temperature.
38	M	Thrombo-angiitis obliterans	Pain in arch of right foot on walking. Discoloration of ankle and foot	Decreased ankle 0 - foot	Good	All toes 20 sec.	All toes 4 sec.	Early Buerger's with slight symptoms.

TESTS TO SHOW THE MAXIMUM POSSIBLE INCREASE BLOOD FLOW

Skin Temperature. — Of all methods for this purpose, determination of skin temperature is most commonly employed. Temperature of the skin will depend, on the one hand, upon the amount and temperature of the blood brought to it and the speed with which that blood circulates and, on the other hand, upon the loss of heat from the skin by radiation, conduction, and convection. Since so many factors are involved, it is necessary to make the determinations under carefully controlled conditions, particularly as regards the environmental temperature. Even so, the interpretation of skin temperature readings in terms of circulatory changes is primarily an inferential one. In this regard it is well to remember that a rise in skin temperature of one degree in initially cool skin has not the same significance as a similar rise in skin initially warm, for the reason that the closer the temperature of the skin approaches that of the blood the greater must the blood flow through it be increased to cause an additional rise.

Our studies have been conducted in a room, the temperature of which was maintained within one degree of 18.4 degrees centigrade and the humidity to within 10 per cent of fifty. If the limbs of normal individuals, or those of patients with vascular disease be exposed to such an environment for one hour, the temperature of the toes will approximate that of the room. The fingers usually remain several degrees above this level. It is generally stated that a diseased limb will have a lower skin temperature than a normal one. Under the above conditions, we have seldom found this to be so. Commonly, the temperature of the skin of the diseased limb, even down to an actual

TABLE 4.—*Production of Claudication Pain in Normal Persons and in Patients With Occlusive Arterial Disease*

	Circulation Free			Circulation Occluded		
	First Pain (Sec.)	Intolerable Pain (Sec.)	Disappearance (Sec.)	First Pain (Sec.)	Intolerable Pain (Sec.)	Disappearance (Sec.)
Normal	60 - 70	180 - 300	10 - 15	40 - 50	60 - 85	5 - 8
Arterial disease	30 - 50	85 - 100	20 - 55	40 - 50	60 - 85	20 - 60

area of gangrene, may be higher than that of the companion limb. Dissection of such an extremity after amputation has shown poorly nourished and ischemic muscles. This temperature phenomenon may be due to a shunt of blood by collateral circulation through the skin and subcutaneous tissues. It is our conclusion that the knowledge to be gained from a comparison of the temperatures taken from symmetrical points on a diseased and on a healthy limb, exposed to an environmental temperature which induces vasoconstriction, is of little diagnostic value and may, in fact, be actually misleading.

The literature is replete with references dealing with the magnitude of rise in skin temperature of the extremities following induced vasodilatation. In a sense, such emphasis is misplaced, for the reason that this rise will be conditioned by the lowness of the initial reading which, in turn, will depend in great measure upon the environmental temperature. It is not the magnitude of the rise that is important, but rather how closely the highest temperature attained approaches that of the trunk. If, in given areas on the trunk and on the toe, the minute skin vessels are equal in number and maximum dilatation is induced, their temperatures will be equal, provided, of course, that the major arterial pathways supplying these areas are not narrowed. Maddock and Coller[5] have clearly demonstrated that when the vessels of the extremities are widely dilated, the skin temperature approaches that of the trunk. In our studies we have adopted a point of reference at the root of the nose, and express the temperature of the toes or fingers in terms of degrees below that of this point. With induced vasodilatation the temperature of the toes or fingers of a normal person will rise to within one or two degrees, or even exceed, that of the forehead. The number of degrees by which the temperature of an extremity fails to approach forehead level measures the severity of the structural arterial disease present.

Many of the procedures recommended for producing maximum vasodilatation, such as intrave-

Fig. 1 Fig. 2 Fig. 3

Fig. 1.—Mrs. R. A white woman of 73 with pronounced arteriosclerosis apparently suffered an acute arterial occlusion two weeks previously. On admission the foot was gangrenous. An arteriogram indicated the level of the occlusion to be in the middle of the thigh. This was confirmed at operation, a portion of the thrombus being removed from this site.

Fig. 2.—Mr. W. Gangrene of the foot in a man of 65 with diabetes. The outline of the femoral artery is irregular, with striking diminution in caliber due to arteriosclerotic thickening. The popliteal artery is almost occluded at the point of bifurcation. Amputation through the knee joint was followed by prompt healing.

Fig. 3.—Mr. P. A white man of 57 with marked arteriosclerosis was admitted because of gangrene of the great toe. Arteriography reveals obliteration of the femoral artery high in the thigh. A well-developed collateral circulation fills the popliteal artery, which in turn was almost occluded at its bifurcation. On this basis amputation was performed below the knee, with prompt healing of the stump.

nous typhoid vaccine, spinal or general anesthesia, hyperthermia, etc., are not only impractical because they require hospitalization, but are attended by a certain element of risk when applied to patients in the older age groups, or to those suffering from a complication such as diabetes. We have, therefore, investigated the merits of the procedures which are less vigorous and are applicable to ambulatory patients. The method of Maddock and Coller is quite satisfactory, but time-consuming. The immersion method of Landis and Gibbon[6] sometimes does not produce maximum dilatation. We have adopted the following simple procedure: The patient is wrapped in a sheet, and over him is placed a cradle which is heated by carbon filament lamps and covered by woolen blankets. The head and also the extremities to be studied project from the cradle. When the lights are turned on, the rise in finger temperatures is rapid and complete within a few minutes, as illustrated by Chart 1. The rise in the temperature of the toes is slow under these circumstances, and maximum dilatation may not occur until an hour has elapsed, at which time the oral tempera-

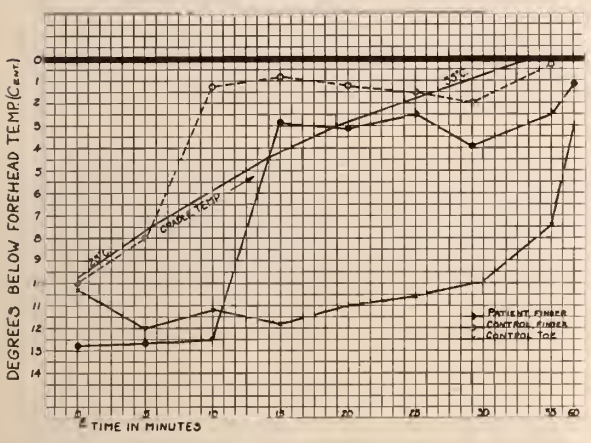

Chart 1.—Vasodilatation of the fingers and toes, produced by application of heat to the trunk.

ture may have risen by a degree or more. It is, therefore, desirable to hasten the appearance of dilatation in the vessels of the foot. For this purpose anesthetization of the posterior tibial nerve is satisfactory. The rise in skin temperature, due to anesthetization only, is followed until a plateau is reached which usually occurs in about thirty minutes. If the final temperature of the toes approaches that of the forehead, no further procedure is necessary. If it does not reach this level, the patient is placed under the cradle and in fifteen to twenty minutes after the lights are turned on, maximum dilatation is reached. Response of a normal person to this combined procedure is shown in Chart 2. That the results compare favorably with those obtained by the use of intravenous vaccine and spinal anesthesia is illustrated by Chart 3.

As to the indications for temperature studies of this kind, we have not found that in patients with arteriosclerosis they give much information of value additional to that obtained from the more simple methods of examination. In patients with

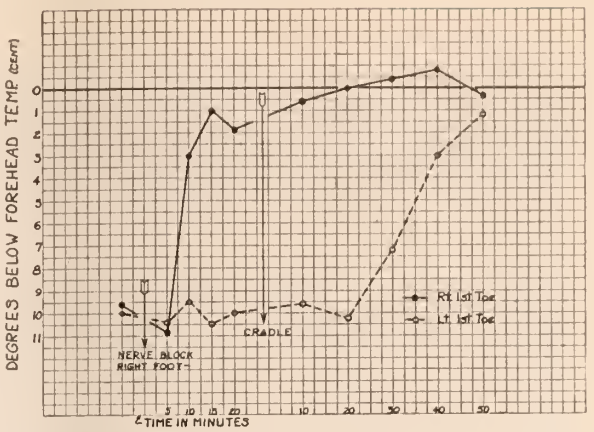

Chart 2.—Vasodilatation resulting from posterior tibial nerve block and heat applied to the trunk, as compared with heat only.

early thrombo-angiitis affecting only the smaller vessels, such studies are often of invaluable aid in making the diagnosis. In the more obscure vascular disorders, such as Raynaud's disease and acrocyanosis, the study of skin temperature behavior has been of great worth in elucidating the exact nature of the vascular fault. As is well known, however, its primary field of usefulness lies in the selection of those patients with Buerger's disease who are suitable for operation upon the nervous system.

DIGITAL PULSE VOLUME BEFORE AND AFTER VASODILATATION

This method, devised by Scupham and Johnson,[7] consists in the application of the plethysmographic principle to measure the increase in volume of a digit with each pulse beat. The digit is inserted through a tight rubber diaphragm into a glass cylinder which is connected by small bore rubber tubing to the shaft of a 1.0 cubic centimeter pipette, into which a bubble of alcohol has been drawn. The bubble, due to its small inertia, oscillates almost synchronously with each pulse beat, and the magnitude of the oscillations may be either read directly in millimeters by placing the shaft of the pipette against a ruler or, better, by its photographic representation upon a moving film. An

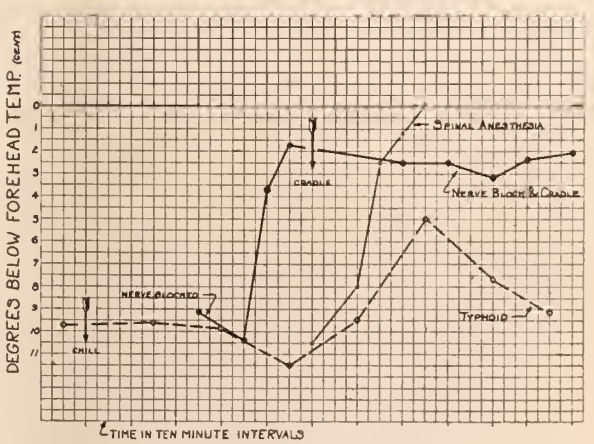

Chart 3.—Comparative effects of various procedures for inducing vasodilatation of the extremities.

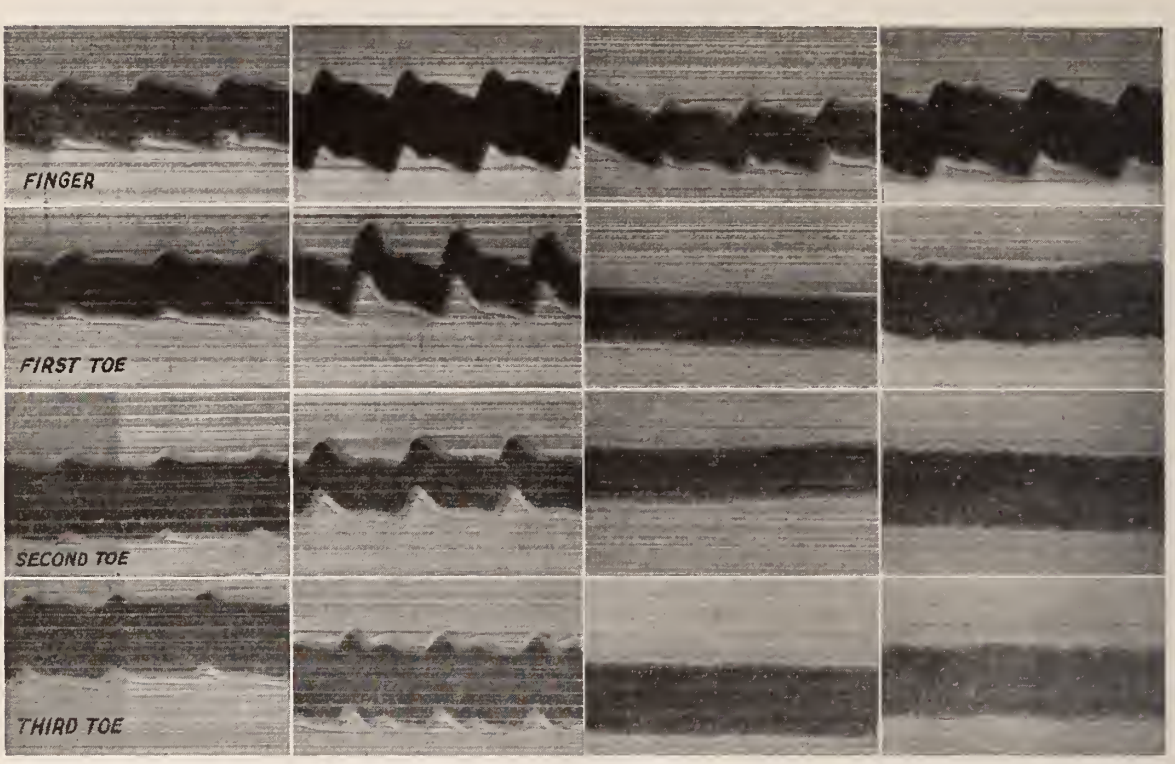

Chart 4.—Digital pulse tracings before and after dilatation, comparing normal response with that of a patient with thrombo-angiitis obliterans.

electrocardiographic camera is easily adaptable for this purpose. With the length and bore of tubing, camera distance, etc., remaining constant, the tracings obtained from patient to patient, and under varying conditions, may be compared and interpreted in terms of altered blood flow. We have evolved a numerical method of expressing such interpretations termed "Volume Flow Ratio." The distance between and the height of succeeding pulse beats are measured in millimeters directly from the tracing. The first value is then divided into the second, and if either the pulse rate increases (distance between waves shortened) or the height of the wave increases (increase in volume flow per beat), the ratio will increase.

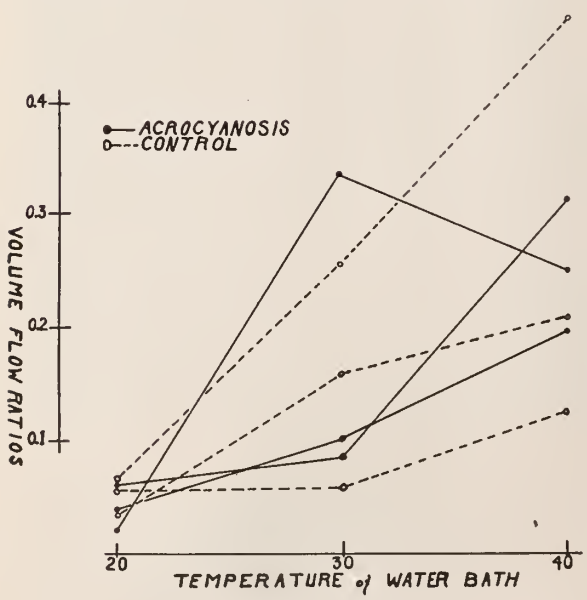

Chart 5.—Response of the digital arteries in normal persons and in patients with acrocyanosis to increasing environmental temperatures.

The finger plethysmograph finds its primary usefulness in observing the behavior of the digital arteries. If an arterial block exists above the level of these vessels, obviously the volume flow ratios will be low, but the presence of such a block is more accurately determined by other procedures. A disease process limited to the arteries of the digits is easily detected, particularly if the pulse volume is determined directly after immersion of the extremity in warm water for fifteen to twenty minutes. By taking tracings from each digit after maximum vasodilatation is thus induced, the affected digits may be recognized. In early thromboangiitis obliterans the diagnosis may be greatly facilitated by this means. An example of the tracing obtained before and after vasodilatation in such a case, together with a normal response, is illustrated in Chart 4.

The pulse tracings obtained from patients with functional vascular disturbances, such as Raynaud's disease and acrocyanosis, have been most instructive. The behavior of the digital arteries, under varying environmental temperatures produced by immersing the hands in water maintained at the temperature desired, may be accurately evaluated. In Chart 5 are represented the ratios for volume flow through the fingers of normal and

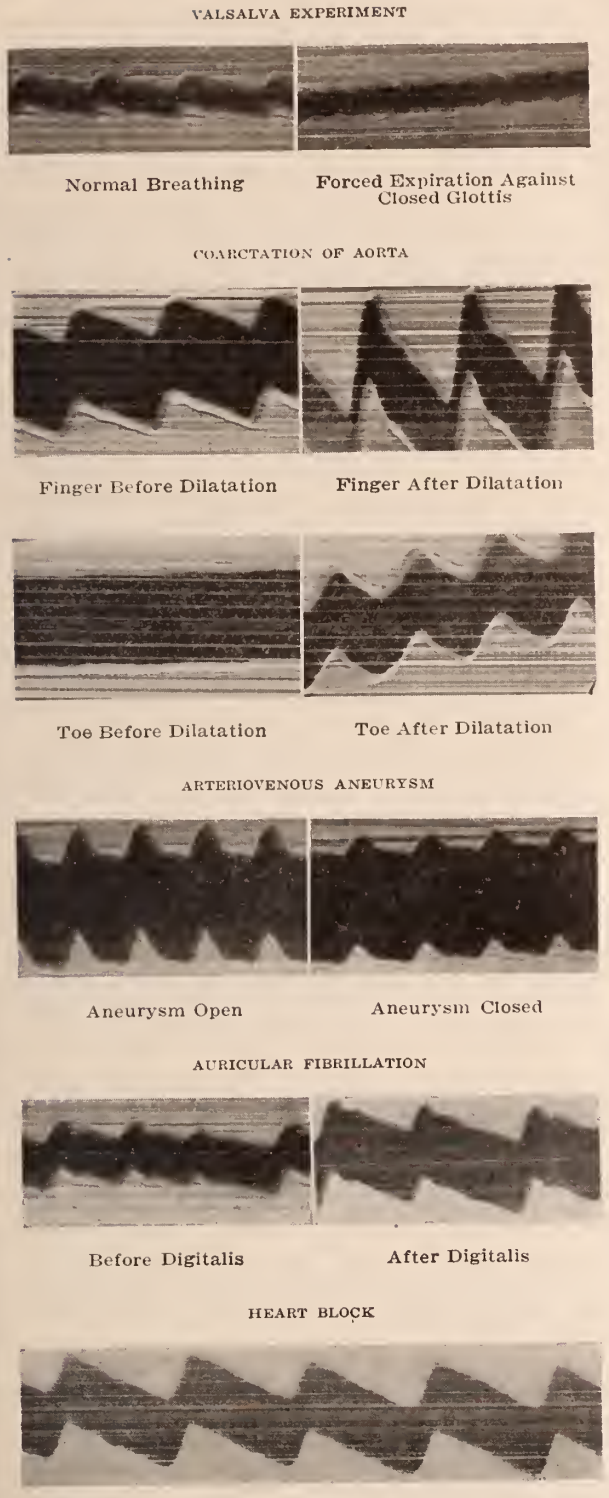

Chart 6.—Types of pulse tracings obtained in various conditions in which the cardiac output may be altered.

acrocyanotic hands. It will be noted that the digital arteries in this condition, not unduly in spasm when the hand is cold, behave quite normally in response to increase in environmental temperature, complete dilatation being present at 40 degrees centigrade. As Lewis[8] has shown, their behavior in Raynaud's disease is distinctly different. Low temperatures induce intense spasm which is overcome with difficulty at higher environmental temperatures. By this method, then, a sharp difference between the underlying vascular fault in these conditions is demonstrated.

It should be added that if the digital arteries are maintained in a constant state of maximum dilatation, changing height of the wave suggests alteration of cardiac output. In Chart 6, the fall-off in finger pulse during a Valsalva experiment is demonstrated, during which it is well known that cardiac output is materially decreased. In Chart 6 are also given tracings obtained from the fingers and toes of a patient with coarctation of the aorta. While caution in interpretation is necessary here because of the vascular abnormality, the tremendous flow through the fingers may in part be due to increased cardiac output, which may be present in this condition.[9] The effect upon blood flow through the fingers of a femoral arteriovenous aneurysm is shown in the chart. This patient had received atropin to obviate the changes in pulse rate consequent upon manipulation of the aneurysm. The decrease in height of the pulse wave when the aneurysm is closed by pressure upon the femoral artery is evident and strongly suggests that the cardiac output is lessened. This interpretation is in strict conformity with the experimental results reported by Harrison, Dock, and Holman.[10] We have also observed a striking smallness of the pulse wave in surgical shock, and in auricular fibrillation with rapid ventricular rate. In complete heart-block the pulse wave is very great. Typical tracings are reproduced on the chart.

In summary, it may be said that this method gives little information not obtainable by the procedures previously discussed in the usual case of arteriosclerosis or Buerger's disease. In purely functional disorders, information is obtained which is of value both in making a correct differential diagnosis and in throwing light upon the true nature of the vascular fault. Inferences regarding cardiac output should, of course, be made with caution, until such time as actual determinations can be correlated with the appearance of the pulse wave under varying circumstances.

SUMMARY

Experiences with the use of various methods proposed for the study of vascular disease as encountered in a representative group of patients are reviewed. The methods studied were: 1. Oscillometry; 2. Arteriography; 3. "Flushing time"; 4. Production of claudication pain with the circulation free and occluded; 5. Comparison of skin temperature readings at symmetrical points before and after induced vasodilatation; and 6. Measurements of the digital pulse volume before and after dilatation. The technique, indications, and comparative values of these various procedures are discussed and evaluated.

Cottage Hospital.

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DISCUSSION

William J. Kerr, M. D. (University of California Medical School, San Francisco).—The authors have given a clear exposition of practical methods for the study of peripheral vascular diseases. These methods are simple and available for physicians who wish to secure reliable information as to the integrity of the arterial supply to the extremities. It is intended that they will supplement the usual observations made in physical examinations which, in most cases, direct our attention to the extremities. A few comments may be made about each procedure described. *Oscillometric readings* on the extremity are helpful in locating the point of occlusion of major vessels in contemplation for amputation. They are of less value in irregularly placed areas of reduced circulation on the foot or toe. In those patients whose arteries are inflamed or readily subject to spasm of the vessels, false readings may be obtained. The *arteriographic method* may be of very great value in arterial occlusion or in arteriovenous aneurysm. Thorium dioxid is but one of the opaque mediums available for this purpose, the halogen compounds being of some value. As the authors point out, small amounts of the radioactive thorium salt may be used safely in elderly subjects who require amputation. The expectancy of life is probably no greater than a few years, and it is not likely that neoplastic changes in the liver will result from the continuous radiation within a period of four or five years; at least no reports of such complications have appeared. However, for those with an expectation of many years of life, other contrast mediums should be used. The *flushing time* in the extremity shows the relative speed of return of bright color to the skin. It does not necessarily indicate the patency of deeper vessels which can be shown by other methods. The method used by the authors is ingenious. In my experience, patients with serious impairment of circulation in the extremities may complain of severe pain in water at 45 degrees centigrade for five minutes, as they do when the vessels are occluded by a blood-pressure cuff. If the circulation to the extremity is marked, the simple procedure of elevation of the limb, the application of pressure with a cuff above the knee or elbow, followed by a lowering of the limb to the horizontal and release of the pressure, will give almost equally good results. There may be some danger of infecting the extremity when there is an open lesion if the hot bath is used. This, however, is not very likely when we consider the degree of exposure to infection these patients have before they come for treatment. The test for *claudication pain* is practical and helpful. The test for *maximum increase in blood flow* by the use of a cradle and injection of peripheral nerves is of definite value, and avoids the risks involved in other general or local methods of securing maximum dilatation of vessels. Tests on pulse volume with any constricting membranes or tubes are subject to error in recording and interpretation, especially in areas where the vascular tree is diseased.

It should be kept in mind that none of the methods described establish the etiologic diagnosis in a given case. They are only tests of patency, continuity, and flexibility of the arteries in conditions where "poor circulation" is manifested. The tests show anatomic and physiologic changes. The etiologic basis for the disorders must be discovered by other means—history, general examination, and clinical course. The authors are to be congratulated upon their clear discussion of a very important subject in clinical medicine.

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William Dock, M. D. (Stanford University Medical School, San Francisco).—It is extremely gratifying to examine the results obtained by well-planned and neatly performed experiments or clinical studies such as these. The observations described under "Flushing Time" and "Production of Claudication" are of especial importance because they can be repeated by any physician desirous of studying the degree of disturbance in function and the areas least well supplied with blood; but the authors' evaluation of such simple tests, based on more difficult or elaborate methods, is what makes them really useful.

On one minor point I find myself in disagreement, and this concerns not the clinical value or interpretation of the findings, but the physiologic basis. The digital pulse records I believe to be simple pulse records, not records of volume flow into and out of the digits or indicative of cardiac output. The authors support their contention for a volume flow partly by noting a decreased finger-pulse on closing a femoral arteriovenous fistula, and interpret this as conforming with the observation of decreased cardiac output on closing experimental fistulae in the dog. But the critical experiment, performed by Lewis and Drury with faultless technique, showed that when such a femoral fistula is closed the blood flow in the arm is greatly augmented, and I feel sure this is also true in the fingers. The pulse pressure and, to a lesser degree, the cardiac output falls, but the flow in the arm rises. Probably even when full vasodilatation has been produced before closing the fistula, the rise in diastolic pressure more than offsets the fall in pulse pressure; mean pressure in the brachial arteries rises greatly and undoubtedly forces more blood through the capillary bed of the fingers. To measure blood flow one must abruptly cut off venous outflow with the finger or arm in the plethysmograph; but the pulse tracings from the digits are of great value in studying the nature of vascular disease of the extremity.

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William H. Leake, M. D. (1930 Wilshire Boulevard, Los Angeles).—These carefully controlled studies should be especially valuable to the clinician interested in peripheral vascular disease. The methods described are helpful in determining the degree of structural alterations and in evaluating the state of the collateral circulation. The frequency with which embolism and thrombosis of the vessels of the extremities occur in cardiovascular disease is now well recognized. Early diagnosis and treatment are necessary. If surgical removal of an embolus is planned, it is imperative to determine its location as accurately as possible. This is not always easy even with the aid of special tests, but nevertheless every accepted diagnostic procedure should be utilized in order to clarify the situation. Obviously, some of the methods of study described in this paper are not suitable for emergency use, but the simpler ones may be easily carried out at the bedside on short notice and with no complicated apparatus.

MANAGEMENT OF POSTOPERATIVE PAIN

By SUREN H. BABINGTON, M.D.
Berkeley

DISCUSSION *by S. Everingham, M.D., Oakland; A. A. Alexander, M.D., Oakland; Fletcher B. Taylor, M.D., Oakland.*

AS a preliminary remark, I would like to state that this paper is based upon the study of eleven original articles, coupled with our own personal observations in the practice of surgery.

What is the nature of postoperative pain following abdominal surgery?

Certainly it is not the pain felt in the incision, for that, in itself, is of minor importance.

It is the gas pain in the intestines due to distention that we are referring to, and it is most distressing to the patient and, at times, alarming even to the surgeon.

How shall we manage it? Of course, it would be better to prevent its development, rather than to seek its alleviation later.

The real problem, then, is to find the causes of postoperative pain.

CAUSES OF POSTOPERATIVE PAIN

When we review the literature on the subject in the experimental field on animals, we find reports quite contradictory. The same is true of data presented by surgeons, which are based upon clinical observations upon large groups of patients in our medical centers.

Some[8] surgeons condemn the use of nitrous oxid in preference to spinal anesthesia, while others,[2,9] claim that gas pains are as common after spinal anesthesia as they are after inhalation anesthesia. However, Cutting[2] believes that inhalation anesthesia is the best in most operative procedures.

Some surgeons advise a long preoperative stay in the hospital, while others[9] consider this not only unnecessary (as far as the prevention of postoperative pain is concerned), but they attempt to show that pains increase in direct proportion to the length of preoperative hospitalization.

Some have condemned the preoperative use of narcotics because of their constipating effects, it being believed they brought on constipation by causing atony of the musculature of the small intestines.

Plant and Miller[11] in 1926, and Grueber[4] in 1930, after experimenting on the intestines of unanesthetized dogs, showed that morphin and its derivatives increase, on the contrary, the tone of the small bowel, and that constipation is due to increased inhibition of the defecating reflex and the increased tone of the sphincters.

Some[5] have suggested substitution, for the liquid diet ordinarily given to the patients for the first few days postoperatively, of a solid diet. The reason for this is the belief that the postoperative gas is caused by excessive putrefaction, as the bacteria, normally present, multiply more rapidly upon a semistarvation diet.

Others,[8,9] on the contrary, have suggested not only complete starvation, but even abstinence from the fluids usually given by mouth for the first few days, these fluids to be given intravenously instead. They believe that complete rest of the gastrointestinal canal helps the intestinal tone to return more quickly.

Paine and others[10] even go so far as to suggest nasal catheter with stomach syphoning immediately following abdominal surgery, while Mahoney insinuates that gastric lavage has done a great deal of harm on some occasions.

Some surgeons[1] recommend proctolysis as a preventive measure against gas and nausea, while Cutting[2] believes this procedure is open to certain objections, and Mahoney[5] openly condemns it.

For a while, in this country, there was a trend toward a rapid and spectacular surgery. Ottenheimer,[9] in a series of four hundred cases, comes to show that there is a lower percentage of gas pains in the operations lasting up to two hours or more than there is in those operations lasting one to one and one-half hours.

So far, therefore, it seems that surgeons are definitely divided into two opposing camps on this question.

However, it is unanimously agreed that the improved mental attitude of the patient, induced by the judicious use of sedatives, the reassuring influence of the surgeon, avoidance of catharsis and all vigorous enemata, and gentleness in the handling of organs during operation, are very important measures in the prevention of postoperative pain.

TREATMENT

Now as to the active treatment:

After we have tried one or another of these preventive measures, according to our preference, what can we do to stop any pains which may, after all, develop?

The so-called gas enema is widely used, but Cutting[2] and Alton Ochsner[7] object to it as a factor in establishing a vicious circle, by irritating the bowels. They believe that a rectal tube can accomplish exactly the same beneficent results without the harm incident to the enema.

The use of drugs, such as eserine or physostigmine, pituitrin, pitocin, choline, acetylcholine, and peristaltin, which are all supposed to promote intestinal movements, have both their advocates and their antagonists. Martzloff,[6] working in the Johns Hopkins Hospital, reported that the patients receiving prophylactic treatment with eserin had worse postoperative courses than those which did not have any such medication. Cutting, after enumerating evidences in favor of and against all of these mentioned drugs, concludes that their value is almost nil, if not contradictory.

However, most clinicians agree that the relief of mechanical tension, due to tight bandaging, should be relieved, rectal tube and heat in various forms should be used freely, and the patient be permitted to turn in bed.

Recently Gepfer[3] of New York City, in a preliminary report, suggested the introduction of a concentrated sterile fraction of bovine amniotic fluid into the peritoneal cavity to promote smoother postoperative convalescence.

When it comes to the use of analgesics, again we have divided opinion about the use of morphin. Paine and others[10] do not find any factors prejudicing the employment of adequate doses of morphin for the control of pain, while Cutting[2] warns that, although the administration of morphin may be found necessary in intractable cases, one must guard against the repeated use of it, as intestinal obstruction may develop unrecognized under the mask of narcosis.

In concluding this paper we wish to make a brief presentation of a case in order to stimulate discussion about the prevention of postoperative pain and the avoidance of the use of narcotics.

REPORT OF CASE

We shall not, however, burden the reader with a long, though interesting, history of the patient, who was fifty-nine years of age, and had been suffering over a period of seven years from periodic attacks of excruciating pains in the left upper quadrant, accompanied by nausea and vomiting.

The attacks usually came on gradually, at intervals of from one to two months, each attack lasting about two weeks. Her weight had dropped from 158 pounds to 100 pounds when we saw her. Naturally, malignancy had been suspected by physicians who had seen her before she came to us.

After a thorough examination, x-rays, spinal puncture, and laboratory tests had been made, the most important finding, which seemed to account for her trouble, was periodic diverticulitis of the splenic flecture of the colon, as the barium enema brought out the presence of three distinct diverticuli in this region.

After the examinations, we sent her home with a non-residue diet and certain medications, with the request that she return in a few months.

When she finally came again, from her home in Arizona, about two months ago, we felt that she should have her carious teeth out. In addition, we gave her reduced iron, and a small amount of digitalis. At the time of the operation, six weeks later, she had gained eighteen pounds.

In the operating room, in addition to the diverticuli, we found extensive adhesions, both in the splenic and gall-bladder regions, and these also had to be attended to.

We avoided giving her narcotics. She made a remarkable recovery, free of nausea and vomiting. This may have been due partly to the use, both pre- and post-operatively, of prostigmin (dimethylcarbamic ester of m-oxyphenyl trimethyl ammonium methylsulphate), . . . a synthetic substance supposedly with a selective action on the intestinal and vesical musculature through their parasympathetic innervation, and hypodermoclysis during and after the operation.

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DISCUSSION

S. Everingham, M.D. (400 Twenty-Ninth Street, Oakland).—I believe that it is quite difficult to discuss the management of postoperative pain without taking into account the preoperative preparation and the skilled manipulation at the operating table. Under the first may be emphasized the careful study of the whole physiological make-up. It is of paramount importance that the water balance, chlorid, and glucose needs be observed and maintained to provide a buffer for the fluid loss from loss of blood and perspiration during surgery.

It is fundamental for a smooth postoperative course that all tissues have most delicate handling. This includes feather-edge dissection and the absence of any rough treatment with gauze. Likewise gentle retraction, and especially pulling on viscera and mesentery, are to be avoided.

Abdominal distention, we have felt, comes from two sources. First, from the abuse of those procedures mentioned above and ileus, the causes of which have been very well worked out in the surgical laboratory. In the main, paralytic ileus is a defense mechanism in response to certain injuries to the sympathetic nervous system. Treatment of this should be aimed at supportive measures, and in our experience the high-powered glandular extracts have not been given an important position in its treatment.

A. A. Alexander, M.D. (1904 Franklin Street, Oakland).—Possibly the term "gas pains" is an unfortunate one, because it focuses attention upon one of the agencies of distress rather than upon the underlying mechanism. Unhappily the problem of gas pains is not peculiar to surgery. Surgical manipulation adds a definite provocative factor and, in general, the degree of peritoneal insult from exposure and handling measures the severity of distress. Hence, operations against time are more productive of gas pains than more deliberate, careful procedures. For similar reasons vigorous preoperative purgation is liable to be followed by painful distention. Regardless of these mechanical factors, so-called gas pains of greater or less severity are not uncommon. For example, in simple neurosis, in circulatory failure, in nephritis or pneumonia, and the well-known distention that occurs after extension casts applied to the spine. Here we have diverse influences brought to bear—in the one case psychic, another anoxemia, another toxic, another mechanical—all to influence the nerve supply of the gut, and alter or arrest the mechanism of peristalsis. As a result gas accumulates and further contributes to stasis. So, to be effective, treatment must aim at the underlying mechanism. There is a definite protection in gentle manipulation with little exposure, and in the psychic set-up preoperatively and immediately before anesthesia. Active treatment when administered concerns itself with correcting the mechanism of disturbed bowel musculature. Eserin, pituitrin, enemas, the rectal tube—all secure the expulsion of gas; but to be effective they must also restore a proper gradient of peristalsis. In the light of recent work it might be interesting to try nitroglycerin for this purpose.

Fletcher B. Taylor, M.D. (400 Twenty-Ninth Street, Oakland).—The subject of postoperative pain becomes important immediately to anyone about to undergo operation, and to that person's physician. Let the author's comment be emphasized that surgeons agree upon certain

basic conditions which minimize postoperative abdominal pain, namely, (1) a good mental attitude in the patient, (2) avoidance of preoperative cathartics, and (3) gentleness in the handling of tissue at operation. These will continue to be more important than any new means of relief for pain which is unnecessarily present. But no technique can be perfect, and pain is an inherent surgical aftermath, so consider it again, and first evaluate it.

If a patient is a poor subject for surgical work, if he or she is psychically volatile or has a low threshold for sensation, habituate that patient to the din and clangor of hospital life for several days before operation. Also find out what pain means to that individual. Press upon the styloid process or the supra-orbital ridge, and inflate the colon to get the amount of response to those procedures; be thus prepared to know what weight to give postoperative symptoms. Otherwise there may follow a panic serial of codein, morphin, gastric and colonic intubations, all the result of misinterpretation of the severity of pain, each remedy or procedure carrying in its wake a new spreading circle of misery.

Prostigmin was used to control pain in the author's patient. I have had no experience with it, but find that it is available as a 1-2000 solution, of which the dose varies between one and five cubic centimeters hypodermically among those who do use it. It stimulates parasympathetic activity and causes contraction of the digestive tube: peristaltic action (J. A. Aeschlimann and M. Reinert, *Journ. of Pharm. and Exp. Ther.*, 43, 413), smooth muscle contraction, expulsion of flatus, bowel movement (Karl Schlaepfer, *West. Journ. of Surg., Obs., and Gynec.*, 44, 437). It is a physiologic antagonist of epinephrin, atropin, and papaverin. It may cause griping, nausea, and faintness in the elderly (Winkelman and More, *Arch. of Neurology and Psych., 37, 237*), so that its use and dosage assume interest which will be tempered by the experience of the future.

Neither this nor any other drug can be expected to supplant the metabolic care of the digestive tube upon which life and comfort ultimately depend. It will still be necessary to control gas accumulation by supporting good circulation in the patient. Effective volume of normal blood must be maintained by the use of fluids, chemical metabolites and calories, before and after operation, in order to invite the benefit of drugs and of nature.

NATURAL GAS—ITS PHYSIOLOGIC ACTION*

By D. B. Tyler, Ph.D.
AND
D. Drury, M.D.
Los Angeles

Discussion *by A. G. Foord, M. D., Pasadena; F. W. Siegmund, M. D., Los Angeles; Arthur E. Guedel, M. D., Beverly Hills.*

THE work to be reported in this paper was undertaken to determine what action natural gas, as supplied to consumers in Los Angeles, may have on animals and man. As the gas was known to have no marked poisonous action, it was our aim to determine what alterations, however slight, the gas might cause in the physiologic processes, even after prolonged application. The gas used in this investigation is typical of that produced in the Southern California oil fields, and odorized and distributed for domestic use in the Los Angeles area. For our use it was taken from the ordinary gas outlets in the laboratories of the University.

EXPERIMENTS ON ANIMALS

On Rats.—The first tests were carried out on rats. They were kept in a cylindrical iron tank, approximately two feet in diameter and three feet in length, with one end covered with cellophane. Gas and air were continuously supplied to the tank in a proportion to maintain the desired mixture. Gas was taken from the ordinary outlet tap, and air was supplied by a pump. Both were measured with gas meters, and the rates were adjusted to give a gas concentration of 8 per cent. Six rats (three males and three females) were kept in such a mixture for thirty-six days. The tank was opened about ten minutes each day for cleaning and feeding.

Table 1.—*Record of Weight and of Red Blood Cell Counts of Rats, Before and After Exposure to the Gas*

	Weight in Grams		Red Blood Cell Count (Millions)	
	Before	After	Before	After
1	110	115	8.5	8.2
2	130	160	7.8	7.0
3	105	105	7.9	7.0
4	180	165	7.6	8.0
5	185	203	7.7	7.9
6	190	220	11.5	10.5

The animals ate well and stayed in good condition. Upon removal all rats were clean and healthy. A litter of new-born rats, born during the night, were found alive at the bottom of the tank, having fallen through the floor grating. They were all in apparently healthy condition, but cold, due to lack of mother care. The gestation period for rats is three weeks, so mating must have taken place during exposure.

Table 1 gives the record of weight and of red blood cell counts before and after exposure to the gas. Only one rat lost weight; most of the others showed definite gains, indicating a normal metabolism. There is no definite trend in the red blood cell counts, indicating no anemia-producing action. The rats were killed, and autopsy revealed nothing whatever abnormal.

On Monkeys. — The next experiments were carried out on monkeys. A monkey was kept in the chamber and supplied with a mixture maintained between 25 and 30 per cent gas in air. It remained in excellent condition, eating well, and maintaining its weight for thirty days, in which state it was observed on the evening of the thirtieth day. On the morning of the thirty-first day it was found unconscious and cold, and it died soon after. The cause of this sudden change in the animal's condition had every appearance of being the result of asphyxia, and due to some mechanical disturbance in the gas-air supply system during the night. Verification of this could not be made by analysis of the gas in the chamber since the attendant had torn open the cellophane covering of the tank in his eagerness to save the animal. Dr. E. M. Butt of the department of pathology autopsied the animal and reported: "Grossly and microscopically there are no lesions suggestive of chronic or acute pathologic processes. Apparently the cause of death is asphyxiation."

The test was repeated on two monkeys, and safety traps were introduced into the supply lines which would automatically prevent asphyxia from failure of the air supply.

* From the laboratories of the Department of Physiology, School of Medicine, University of Southern California.

Chart 1.—Before exposure.

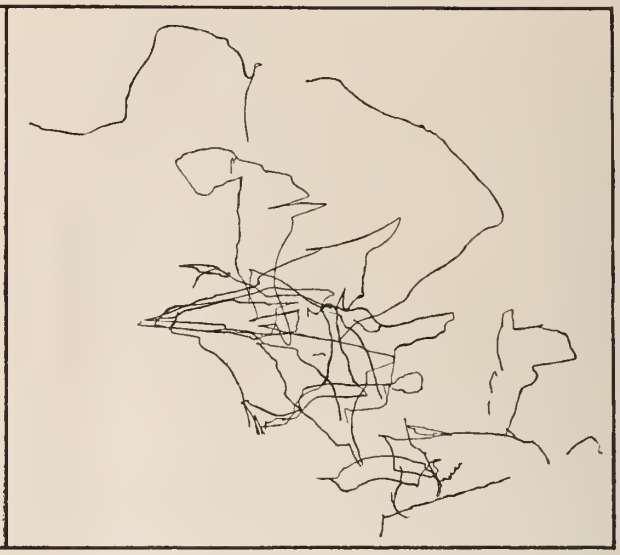

Chart 2.—During exposure.

These monkeys were exposed for thirty-one days in a 25 to 30 per cent gas-in-air mixture. At all times they remained in excellent condition, eating well and becoming quite tame as the experiment progressed. On the thirty-first day they were taken out and killed, and thorough autopsies were carried out by Dr. E. M. Butt, who reported: "Grossly and microscopically, no pathologic lesions of any type are found. The monkeys are normal."

The changes in weight and red blood count are as follows:

Table Showing Changes in Weight and Blood Count

	Weight in Pounds		Red Blood Cell Count (Millions)	
	Before	After	Before	After
1	5	4⅝	4.9	6.7
2	6½	5¾	4.8	6.9

These changes can be entirely accounted for by the lowered oxygen tension to which the animals were subjected. The gas diluted the air to the extent of 30 per cent, so that the oxygen percentage in the air breathed must have fallen to about 15 per cent. This alone would have caused the slight drop in weight and the marked rise in the red blood count.

EXPERIMENTS ON HUMANS

Procedure.—These were conducted in a room that was completely isolated and where every precaution could be taken for safety from fire. The dimensions of the room were 13 by 11½ feet, and 10 feet high. It was made reasonably airtight, and a small amount of gas was run in constantly to maintain the concentration which would otherwise fall as a result of seepage. Analysis for gas and oxygen were carried out constantly, and the proper concentrations were maintained throughout. Four male subjects were exposed for two hours to a concentration of 25 per cent gas in air. Tests were made on them before, during and after the exposure.

General Reaction.—Subjectively, the men experienced no symptoms except the smell of the gas and a sense of mild exhilaration. No aftereffects were experienced, no disturbances of appetite or eating.

Eyes.—Visual acuity, as determined by Snellen's test types, was unchanged during or after the exposure.

Central Nervous System.—The amount of swaying that the subject evidenced in the attempt to maintain a perfectly steady upright posture was graphically depicted by attaching a writing lever to the subject's head which recorded any movement of the head during three minutes on a smoked paper fixed above. This gives an excellent indicator of the functional condition of many parts of the neuromuscular system, which play a part in the righting reflexes involved here. The eyes, semicircular canals, and skin, muscle and joint sense of the legs are the sensory organs of these reflexes. Important pathways and centers of

TABLE 2.—*Pulse Rate*

Subjects	Before Exposure	After Exposure of		
		Half Hour	One Hour	Two Hours
A	68	72	66	66
B	72	72	72	72
C	96	84	78	78
D	84	72	66	66

Systolic Blood Pressures

Subjects	Before Exposure	After Exposure of	
		One Hour	Two Hours
A	108	104	.....
B	118	112	106
C	160	128	.....
D	138	110	112

Fig. 1.—View of animal tank

Fig. 2.—View of room used for human subjects

the central nervous system are concerned in these reflexes and, of course, also the sensory and motor nerve trunks together with the muscles of the legs. We have a simple procedure here which tests the functioning of a considerable portion of the neuromuscular system. The exposure to gas had no effect on the ability of the subject to maintain the upright position; the total amount of movement and the limits of swaying being the same as in the control period. Charts 1 and 2 illustrate this.

The functioning of the higher centers was tested by having the subjects do mental arithmetic. The times taken to do problems in addition were determined. No change in the time taken to do the addition, nor the tendency to make mistakes was noted.

Temperature and Respiration.—Both body temperature and respiratory rate were constant throughout, being unaffected by the exposure.

Circulatory System. — Pulse rate, blood pressure and electrocardiograph records were made. Table 2 gives the pulse rates and blood pressures.

In the cases of subjects C and D we see elevated pulse rates and blood pressures before the tests which came down to normal in the gas chamber. This was undoubtedly due to apprehension on their part before the test. The electrocardiograms were taken before and after exposure. They were unchanged by the stay in the gas chamber. All records were normal.

Kidneys.—Urine was collected after exposure. They were all negative for sugar, albumen, and casts.

Blood Chemistry.—Blood samples were taken for determination of sugars and lactic acid. Table 3 gives the results.

These figures do not indicate any significant action of the gas. The small drop in blood sugars during the morning (the subjects had had breakfast) is not unusual. It is evident that no glycogenolysis in the liver, or glycolysis in the muscles, has been caused by the gas. Many toxic agents cause rises in blood sugar and blood lactic acid on their application; most anesthetics do this. Any appreciable secretion of adrenalin would cause rises in these figures. We may say, then, that the gas had no effect on these functions.

EXPERIMENTS WITH VERY HIGH CONCENTRATIONS OF GAS

A monkey and six rats were kept eight hours in the tank in which the gas mixture was maintained at 80 per cent gas and 20 per cent oxygen. The animals remained quite normal in appearance, with their usual amount of activity. This eight-hour exposure was repeated on the following day with the same negative results. They seemed normal in all respects after they were taken out. The monkey was killed, Doctor Butt performed the autopsy and reported all tissues normal. The rats were observed for a month after exposure and remained in excellent condition. We were,

TABLE 3.—*Blood Lactic Acids*

Subject	Before	One-Hour Exposure
A	28.1	27.0
B	13.3	10.8
C	21.2	11.5
D	12.0	11.2

Blood Sugars

Subject	Before	One-Hour Exposure
A	99	89
B	85	84
C	108	94
D	105	89

TABLE 4.—*Analysis*

Fraction	Per Cent by Volume	Gasoline Content Gal. Per MCF
Air	Trace	.....
Carbon dioxid	0.4	.....
Methane	90.00	.....
Ethane	4.63	.....
Propane	3.91	.....
Isobutane	0.47	0.15
n-Butane	0.51	0.16
Pentanes-plus	0.08	0.03
Total	100.00	0.34

(Traces of light gasoline fractions calculated as n-Petane.)

therefore, unable to show any action of the gas at all, even with very high concentrations. As far as our tests go, it is as inert as nitrogen.

COMMENTS

In applying our results to natural gases in other localities, cognizance must be taken of differences in composition. A sample of our gas taken on October 29, 1936, was analyzed by Edgar E. Shafer, Jr., Los Angeles, who reported as outlined in Table 4.

Probably the only significant components which might give physiologic effects, if present in higher concentrations than in our gas, are the higher hydrocarbons-hexane and higher. Patty and Yant[1] report vertigo after ten minutes' exposure to 0.5 per cent hexane and "marked vertigo and incoördination; hilarity lasting thirty minutes after exposure," after fifteen minutes' exposure to 0.5 per cent heptane. These compounds are ordinarily quite thoroughly removed by oil companies supplying gas, but it might be that some natural gases contain enough of these substances to have some action. The slight exhilaration noted by our subjects might have been due to the traces of these present in our gas. It seems hardly necessary to add that any definitely toxic compounds, such as hydrogen sulphid, would affect the physiologic action of the gas. Also, it must be remembered that faulty combustion of natural gas, in burners or heaters, can give rise to carbon monoxid—a decided poison.

Our observations on animals extended from February, 1936, to August, 1936.

SUMMARY

Natural gas, as supplied to domestic consumers in Los Angeles, is without demonstrable effect on human beings in concentrations of 25 per cent.

Animals kept in 25 per cent gas for thirty days remain normal in every respect.

Animals exposed to 80 per cent gas for eight hours were unaffected.

Department of Physiology,
University of Southern California Medical School.

REFERENCE

1. Patty, F. A., and Yant, W. P.: U. S. Bureau of Mines Report of Investigations, No. 2979.

DISCUSSION

A. G. Foord, M. D. (Huntington Memorial Hospital, Pasadena).—The experiments of Doctors Tyler and Drury verify the large amount of work done by the United States Bureau of Mines, which shows that the great danger in gases is from carbon monoxid and not methane. The work demonstrates the nontoxicity of methane, and the analysis of the gas furnished by the authors is informative; but care must be taken not to consider the figures offered as the amount of various gases that may be present at some later time. Sometimes poisonous gases, including carbon monoxid, may be added without our knowledge. The clinical observations at our hospital are in keeping with the authors' experimental results, since the patients who have entered our hospital for gas poisoning, obtained in their homes in the last few years, have been those affected by carbon monoxid formed by incomplete oxidation of the gases present in the natural gas furnished in Pasadena. None have come in because of exposure to escaping nonburning gas; but several failures of attempt at suicide by inhaling natural gas have been reported in our city.

F. W. Siegmund, M. D. (740 South Broadway, Los Angeles).—This foregoing report covers the findings of the research itself so completely that further technical discussion seems unnecessary. Perhaps, however, it would be in order to mention the reasons for undertaking this experiment. Whether due to popular misconceptions, or whether motivated otherwise, the alleged toxicity of natural gas has been the basis of a number of suits against the gas-distributing companies of Southern California in recent years. For example, in the case of Emma B. Clifford and H. B. Clifford, husband and wife, versus the Southern Counties Gas Company of California, the complaint was as follows:

"That on or about August 1, 1932, the defendant, Southern Counties Gas Company of California, was engaged in the business of supplying gas to homes for domestic use and maintained and operated its gas mains, pipes and system for that purpose, and that said defendant on said date did have its gas pipes and system in the vicinity in which plaintiffs lived and in the home of the plaintiffs, located at 11531 Braddock Drive, Culver City, California, for the purpose of distributing gas in said vicinity and supplying gas to said home; and that certain of said gas pipes and system were connected with a heater in said home.

"That at said time and place the said defendants carelessly and negligently maintained and operated said gas pipes and system in said vicinity and home, and negligently permitted water to enter and remain in said gas pipes and system, and negligently suffered and allowed said gas pipes and system so connected with said home and heater to leak, escape and emit gas, causing the plaintiff, Emma B. Clifford, while engaged in her household duties, to become asphyxiated and suffocated by the fumes of said gas; and to suffer injuries as follows: that said plaintiff was rendered unconscious and confined to her bed for several weeks, and she became irrational, suffered from stomach trouble, nervous shock, numbness, and general disability."

As a result of the evidence introduced in the case, the judgment of the court was that the plaintiff, Emma B. Clifford, was not asphyxiated or suffocated by the fumes of any gas, and plaintiff, Emma B. Clifford, suffered no injuries as a result of any asphyxiation.

My experience in handling medical work with gas company employees, many of whom at times are exposed to natural gas, had led me to conclude that there is virtually no basis for the assumption that natural gas is toxic. Consequently, when Mr. A. F. Bridge, Vice-President of the Southern Counties Gas Company, proposed the experiment under discussion, I was of the opinion that it could be carried out with human subjects with little hazard. As shown in the report, the research clearly demonstrated that claims such as those made in the allegations quoted above are without foundation.

A survey of obtainable literature relative to the subject proved very unsatisfactory, as extensive tests of this type had not previously been conducted. The matter was finally taken up with Doctor Drury of the University of Southern California Medical School, who kindly consented to work with us in conducting some experiments.

The first tests were carried out upon animals, rats, and monkeys used as the subjects. These experiments took place in the laboratories at the University of Southern California, and under direct supervision of Doctor Drury. After being kept in a gas tank for thirty days, the animals were found to be normal in every respect. A litter of rats born during this period were seemingly in a healthy condition.

Arrangements for the tests on humans were under the supervision of Mr. G. Corfield, research engineer for the Los Angeles Gas and Electric Corporation, and were carried out under the direction of Doctor Drury, Mr. Corfield, and myself.

This experiment was conducted at the plant of the Los Angeles Gas and Electric Corporation, and I was asked to carry on the examination of the four men chosen for the test. In order to note subjective symptoms of exposure more accurately, I spent some two hours and thirty minutes in the room with these men, checking pulse, temperature, respiration, blood pressure, and pupillary reactions. During the entire time, the only symptoms noted were those of a slight dryness of the membranes of the nose and throat.

Arthur E. Guedel, M. D. (613 North Elm Drive, Beverly Hills).—This excellent report of very practical research is worth while. Most of us look upon illuminating gas as lethal. This is probably because we have seen many deaths from gas inhalation in communities where so-called artificial gas (coal gas) is used for heating or illumination.

There is nothing to be added to Doctor Drury's paper, so far as natural gas is concerned. However, it is well to sharply differentiate between natural gas and gas manufactured from coal.

The concentration of the olefines such as ethylene, butylene, and propylene, in either natural or artificial gas, is insufficient to produce any harmful effects in the ordinary accidental or suicidal admittance into a room.

The difference between the two gases, from a toxic standpoint, depends upon the amount of carbon monoxide that they contain. In natural gases this is usually of insignificant quantity. In artificial or coal gas, however, the carbon monoxid tensions are from 2 to 10 per cent, or even higher; and it is this gas which is responsible for the accidental and suicidal deaths that have appeared so frequently.

It must also be remembered that in natural-gas communities, in emergencies of great consumption, this gas is replenished by artificial or coal gas. In other communities in which the natural gas is of insufficient caloric value, it may be enriched by manufactured gas. In either case the amount of carbon monoxid delivered by the artificial gas might prove fatal.

I must confess that my own idea of gas delivered by a gas jet or a furnace has been that of a lethal gas. I am indebted to Doctor Drury for correcting that impression.

It is to be suggested that we still consider all illuminating and heating gases as toxic, because we cannot expect the gas companies to notify us when they are replenshing or fortifying their natural gas with artificial gas.

From a suicidal standpoint, however, it is probable that a hand-to-hand fight with a grizzly bear would be more certain.

THE PATHOGENESIS OF OTOGENOUS CEREBELLAR ABSCESS*

A STUDY OF SIXTEEN CASES VERIFIED AT AUTOPSY

By Cyril B. Courville, M.D.
AND
J. M. Nielsen, M.D.
Los Angeles

Discussion *by Carl W. Rand, M.D., Los Angeles; Rupert B. Raney, M.D., Los Angeles; Frank E. Detling, M.D., Los Angeles.*

INTRODUCTION.—For the past five years the writers have been particularly interested in the various intracranial complications of otitis media and mastoiditis. Our interest in this phase of neurology may be traced to the time when we were first asked to see patients on the wards of the service of otorhinolaryngology at the Los Angeles County Hospital. Much to our chagrin, we were all too frequently unable to give an intelligent opinion as to what was taking place within the dura. Determined to correct this situation, at least in so far as we were concerned, we set ourselves to the task of working on the various problems which soon confronted us. One problem which we deemed of greatest importance, so far as the patient was concerned, was the relationship between the various pathways of invasion to the intracranial space and the early clinical manifestations of the various intradural lesions resulting from such an extension.

Thus a rather unusual situation has developed. We find ourselves, as neurologists, critically inspecting from the interior of the skull the bulwarks of the petron to determine the weak points in its line of defense. Hitherto, our colleagues in otology have particularly interested themselves in following the organisms through the holes and seeing what happens inside as a result of the invasion. If, in our interest, we have been guilty of looking over the line of the petrous ridge to check on ourselves, we trust that we may be forgiven for overstepping that thin frontier between the two specialties—the dura mater.

In a recent report,[1] a survey was made of the pathogenesis of otogenous abscess of the temporal lobe. The present one is concerned with the pathways of infection to the cerebellum. Our own experience is based upon a study of twenty-one cases of verified otogenous cerebellar abscess. To correlate our findings with those of other observers, a survey of the important monographs concerned with abscess in this situation have been reviewed.

UNDERLYING FACTORS IN CEREBELLAR AND TEMPORAL ABSCESSES

While the essential underlying factors concerned with extension of infection are the same in cerebellar as those in temporal abscess, certain differences should be given consideration. For instance, perhaps in no other part of the brain are abscesses so likely to be due to otitis media as are those of the cerebellum. Moreover, the peculiar anatomic structure and relationship of the cerebellum make the problem of extension entirely different than in otogenous abscess above the tentorium. For example, labyrinthitis has proved to be much more often the cause of cerebellar than of temporal abscess. Furthermore, the peculiar relationship between the cerebellum and the lateral sinus favors the development of a cerebellar rather than temporal abscess in infectious lesions of this structure. The size and arrangement of the cerebellar folia and their relationship to the posterior wall of the petrous pyramid present a different anatomic situation than do the larger cerebral convolutions.

In order for us to get a proper survey of the problem, we have taken for a basis 122 cases of abscess of the brain found in a series of over 15,000 autopsies. The source of these abscesses and their location are surveyed in Table 1.

It is of interest to note that, of all the cerebellar abscesses which come to autopsy, a great percentage of them are otitic in origin. For some reason or other metastatic abscesses are relatively uncommon in the cerebellum. This is probably because the arterial route to the structures in the posterior fossa is much more indirect, as compared with the one more direct by way of the common carotid artery. Only one instance of cere-

* From the Departments of Neurology of the College of Medical Evangelists and of the School of Medicine, University of Southern California, and the Cajal Laboratory of Neuropathology, Los Angeles County Hospital.

Read before the Neuropsychiatry Section of the California Medical Association at the sixty-fifth annual session, Coronado, May 25-28, 1936.

TABLE 1.—*Sources of Infection in Abscesses of the Brain in a Series of 15,000 Autopsies**

Otitis media and mastoiditis	47
Accessory nasal sinuses	13
Suppurative diseases of the lungs and pleura	12
Endocarditis	7
Infections of adjacent skull and face	4
Gastro-intestinal tract, including accessory glands	3
Secondary to dental infections	3
Rare sources	3
Source of infection unknown	30
Total	122

* Cases of traumatic abscess are not included in this series. Autopsies on cases of injury are performed by the county coroner.

bellar abscess, not due to otitis media, was found in the series. This one was apparently secondary to pneumonia. From the standpoint of cerebellar abscess, we are concerned essentially, therefore, with those of otitic origin. A study of the possible routes by which this infection reaches the cerebellum forms the basis for this review.

ESSENTIAL FUNDAMENTALS

The cerebellum is actually more distant from the middle ear than is the temporal lobe. To reach this structure by contiguity, it is necessary for infection to spread either (1) within the mastoid cells, particularly those in the superior group; (2) into the cells of the petrous pyramid, or (3) into the labyrinth itself. The intervening cellular spaces must be invaded consecutively before the infection can pass on to reach the cerebellum. If, perchance the infection reaches the cerebellum by way of a vascular channel, it must first invade the lumen of a vessel draining into the lateral sinus or superior petrosal sinus. While it is possible for extension to the cerebellum to occur without gross involvement of the venous channel itself, such an eventuality is the exception rather than the rule. The channel is usually first occluded by a thrombus.

A study of the statistics concerned with otitic complications sheds some light on the pathogenesis of cerebellar abscess. Judging from a survey of the literature,[2] otogenous cerebellar abscesses are about one-half as common as cerebral abscesses. Cerebellar abscesses are more common in the second and third decades of life than in the first, contrary to the opinion of some. They occur almost twice as often in males, as compared with females (7 to 4), although the percentage of cerebral abscesses in males is even greater (9 to 4). Cerebral abscesses occur slightly more often on the right while cerebellar abscesses are slightly more common on the left. This difference is not very marked, perhaps not important enough to warrant serious consideration.

The possible routes to the cerebellum which infection may travel are (1) by way of preformed paths, (2) through intermediate cellular involvement, (3) by way of the labyrinth, (4) by way of venous channels, and (5) following surgical exploration through the infected mastoid wound. The routes followed by infection in our series of sixteen autopsied cases are shown in the accompanying table (Table 2).

EXTENSION BY WAY OF PREFORMED PATHS

There are a number of preformed channels through which infection from the middle ear may reach the cerebellum, *i. e.,* internal auditory meatus, the facial canal, aqueductus vestibulae (containing the ductus endolymphaticus) and aqueductus cochleae, and, particularly in the children, the petrososquamosal suture and the hiatus subarcuatus. The statement of af Forselles [3] to the effect that infection of the brain by way of preformed channels is more apt to occur in the posterior fossa, but in the posterior fossa extension by such channels is more apt to result in meningitis than abscess, is probably quite the case. The widened subarachnoid spaces (cisterns) in proximity to the posterior surface of the petrous bone favor the dissemination of infection in the cerebrospinal fluid rather than its localization in the cerebellum, pons or middle cerebellar peduncle.*

Extension by way of the vestibular and cochlear aqueducts logically follows labyrinthine infections, and these possibilities will be considered in a later section.

In a collected series of eighty-eight cases of otogenous cerebellar abscesses, Blau[4] found two cases which he concluded were due to extension by way of the hiatus subarcuatus, one following acute and the other chronic otitis media. In Eagleton's collected series [5] of 125 cases of cerebellar abscess, he found five in which the extension was thought to be by way of the hiatus subarcuatus. Cerebellar abscess resulting from extension by way of the petrososquamosal suture must be rare indeed. Extension by way of the facial canal is likewise rare, although the collected series of both Blau [4] and Eagleton [5] list an abscess with such an etiology.

Pontippidan [6] believes that extension by way of the porus acusticus internus may result in abscess of the middle cerebellar peduncle. In Eagleton's series,[5] seven of one hundred and twenty-five cases of cerebellar abscess were thought to be due to infection by this route.

EXTENSION THROUGH INTERMEDIATE CELLULAR INVOLVEMENT

The posterior fossa is separated from the middle ear by interposed bone which shows variable degrees of pneumatization. Extension in this direction takes place in a great many instances after a prelimiary involvement of one or more of these cell groups. The cell groups through which the infection may pass are those (*a*) in the petrous angle, with extension through Trautmann's triangle; (*b*) about the sigmoid sulcus, with extension through the lateral sinus or on either side of it; (*c*) posteriorly placed mastoid cells;

* In this connection should be stressed one type of otitic cerebellar abscess which is of more interest to the pathologist than the clinician. In some cases of subacute otitic meningitis, in which there is a heavy accumulation of exudate in the lateral cisterns, one or more small circumscribed, but poorly encapsulated, abscesses may develop in the superficial portion of the middle cerebellar peduncle, in the pons or within the folia forming the anterior border of the cerebellum. Occurring as they do shortly before death, it is very doubtful whether they produce any detectable symptoms.

TABLE 2.—*Series of Sixteen Cases of Verified Cerebellar Abscess*

No.	Case No.	Age	Sex	Otitis Media		Mode of Extension	Location and Type of Abscess	Organism	Associated Pathology
				A or C	R or L				
1	609	11	F	?	R	Petrous angle	Large abscess—right hemisphere and vermis	Streptococcus (H)	
2	713	14	M	C	R	?	Small abscess—right hemisphere	?	Meningitis.
3	1388	9	F	A	R	Petrous angle	Large abscess—right hemisphere	Streptococcus (H)	Postoperative abscess right temporal lobe. Meningitis.
4	3187	30	M	C	L	Petrous angle	Small abscess—left hemisphere	B. Proteus streptococcus	Subdural abscess.
5	4673	46	M	C	R	Labyrinthitis	Small abscess—right hemisphere	Mixed	Labyrinthitis.
6	6516	5	M	C	R & L	Lateral sinus	Small abscess—right hemisphere	Pneumococcus	Subdural abscess right lateral sinus thrombosis. Meningitis.
7	7341	5	M	C	R & L	?	Large abscess—right hemisphere—drained at operation	Streptococcus	Meningitis.
8	8500	51	F	C	L	Petrous angle	Small superficial abscess	Pneumococcus	Subdural abscess.
9	8645	47	F	C	R	Petrous angle	Abscess 3 centimeters in size—right hemisphere	Streptococcus	Extradural abscess. Meningitis.
10	9228	15	M	C	L	Lateral sinus	Large abscess—left hemisphere	Pneumococcus	Lateral sinus thrombosis. Subdural abscess.
11	9558	31	M	A	L	Petrous angle or lateral sinus	Small interfoliar abscesses	Pneumococcus	Extradural abscess. Lateral sinus thrombosis.
12	9844	33	F	A	L	Meninges (postmeningitic). Lateral sinus?	Small abscess—left middle cerebellar peduncle	Streptococcus	Meningitis—basilar lateral sinus thrombosis.
13	11067	28	M	C	L	Petrous angle	Multiloculated abscess of left cerebellar hemisphere	Streptococcus	Subdural abscess. Thrombosis left lateral sinus.
14	11325	56	F	C	R & L	Petrous angle	Encapsulated abscess, walnut size	Streptococcus	Subdural abscess.
15	12632	8	M	C	R & L	Lateral sinus	Large circumscribed abscess in left hemisphere	?	Thrombosis left lateral sinus. Meningitis.
16	14251	28	M	C	L	Petrous angle?	Large abscess—left hemisphere	?	Abscess in left temporal lobe.

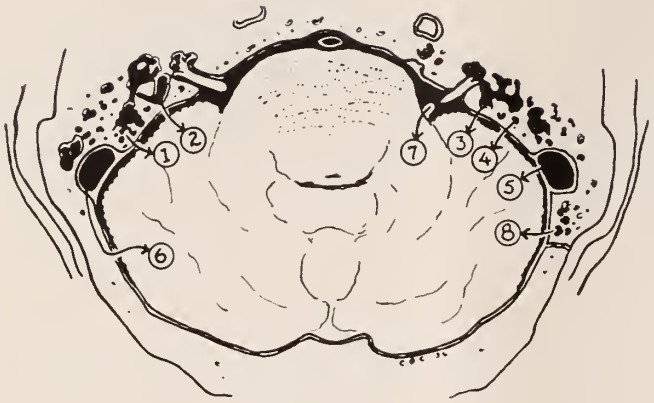

Fig. 1

Fig. 2

Fig. 1.—Pathways of infection from the temporal bone into the cerebellum. (1) Through petrous angle (Trautmann's triangle). (2) Posterior semicircular canal. (3) Vestibule of labyrinth (ductus endolymphaticus). (4) Perilabyrinthine cells. (5) Through lateral sinus. (6) Along lateral sinus and cerebellar veins. (7) From exudate in lateral pontine cistern. (8) Through posteriorly placed mastoid cells.

Fig. 2.—Pathways of infection from the labyrinth. The right organ is shown. The heavy diagonal stripe is the superior petrosal sinus.

(*d*) perilabyrinthine cells; and, theoretically, the (*e*) apical petrosal cells. The possibilities of extension from the adjacent bone are shown in the accompanying figure (Fig. 1).

(a) *Erosion Through the Petrous Angle (Trautmann's Triangle).*—This route of extension is one of the more common ones, since it is the shortest line to the posterior fossa from the mastoid antrum. In Blau's series of eighty-eight cases, extension through the posterior antrum wall occurred in the fifteen cases (17 per cent), two after acute and three after chronic otitis media. In Eagleton's collected series of 125 cases, caries of the petrous bone was present in twenty-two instances (17.6 per cent), although the exact site of the caries was not stated.

In no other route of the extension is the classic "layer-by-layer" mode of invasion so often and so characteristically seen as it is in this situation. The cells in the petrous angle are almost invariably filled with exudate and the bone, forming Trautmann's triangle, is usually carious. The dura is diseased and usually there is a circumscribed subdural accumulation of pus, walled off by local adhesions between the dura and arachnoid.†

The resultant cerebellar abscess may be small (interfoliar abscess) or large. In the latter case it dissects its way between the folia of the superior or inferior surface of the cerebellum. These interfoliar abscesses, whether large or small, are as a rule poorly encapsulated, having for their walls, at least in the early stages, the pia covering the foliar surfaces. Small abscesses, of course, are not surgical and may not provoke clinical manifestations. The larger ones may give rise to localizing symptoms, and at times moderate symptoms of increased intracranial pressure. Because of poor encapsulation, surgical exploration frequently fails in its effort to drain the abscess.

We believe this route is more common than is usually suspected. It proved to be the fact in seven of our sixteen cases, and was the possible route in two others. This seems to emphasize the necessity of cleaning out the petrous angle at the time of mastoidectomy when extension into the posterior fossa is suspected.

(b) *Erosion Through the Sigmoid Sulcus.*—Erosion of the sinus plate is a common finding in mastoid operations, and yet it is followed by cerebellar abscess in only rare instances. In Blau's series [4] there were nine of the eighty-eight cases of cerebellar abscess with erosion of the sigmoid sulcus, this aside, apparently, from fourteen other cases with thrombosis of the lateral sinus. The lateral sinus is interposed between the plate and the posterior fossa. Erosion of bone in this situation is, therefore, only the first stage of pathogenesis. In order for a cerebellar abscess to form, the dura on either side of the sinus must be penetrated, the infection must pass directly through walls of lateral sinus or along this channel into the cerebellar veins. In the first case, extension through the dura occurs most often in the petrous angle (through Trautmann's triangle). Extension occurring by way of the lateral sinus will be discussed further.

(c) *By Way of Posteriorly Placed Mastoid Cells.*—As to extension of infection to the cerebellum by way of the posterior mastoid cells such an eventuality must be extremely rare. While in some instances infected cells are to be found posterior to the lateral sinus, at times extending well back toward the occiput, the inner table does not often seem to be involved. In our day such extensive mastoids are usually promptly operated, but if unoperated the patient succumbs to the mastoid infection before time permits the develop-

† At times this subdural collection of exudate assumes sufficient proportions to be classified as a subdural abscess. It may provoke lateralizing cerebellar symptoms without elevating the intracranial pressure. In such cases an antemortem diagnosis is almost impossible to make, and corrected treatment is, therefore, seldom applied.

ment of a cerebellar abscess. No such case has come to our personal attention, although there was an instance of this etiology in Blau's series which followed an acute otitis media.

(d) *Extension by Way of the Perilabyrinthine Cells.* — The cells about the bony capsule of the labyrinth show great anatomic variation from one case to another. No doubt these cells are more frequently affected, to some degree at least, than is generally supposed. In most instances this comes about by direct extension from the antrum or the superior group of mastoid cells. It is theoretically possible for these cells to become affected secondarily to labyrinthitis. In the great majority of cases no extension to the posterior fossa takes place. In the relatively few cases in which such extension does occur, it may be *directly* through small local erosion of the inner table or at times through gross necrosis of the posterior surface or the ridge of the petrous bone.‡ Extension may place *indirectly,* probably less often, by rupture of a cell into the labyrinth or by way of the veins draining into the superior petrosal sinus.

Unless there is gross erosion, it may be difficult or impossible to tell the exact route of extension without critical, histologic studies of the petrous bone. In our series such studies have as yet not been done, and we hope that our colleagues will investigate the situation in the petrous bones which have been saved in many instances for this purpose.

(e) *Possible Extension From Petrous Tip.*— As has been emphasized in another connection,[7] we do not believe that infection in the petrous tip can produce an abscess of the brain. In the first place, erosion of the inner table of bone results in the formation of a local extradural abscess which is usually followed by meningitis. If by chance infection should gain entrance to the hippocampal gyrus, an abscess could not possibly develop, since the inferior horn of the lateral ventricle lies just above it. Because of the large basilar cisterns, on the other hand, the cerebellum and middle cerebellar peduncle are so removed that it is almost impossible for any direct extension into these structures to occur. We do not know of a single case in which a cerebral or cerebellar abscess has arisen in consequence of infection in the petrous tip. And should such an association occur, we believe that the lesions would be coincidental rather than chronologic.

INFECTION BY WAY OF THE LABYRINTH

The probability of extension of otitic infection to the posterior fossa by way of the labyrinth has been recognized for many years. In 1891 Jansen [8] reported eleven cases of cerebellar abscess. In seven of these cases pus was found in the vestibule, and in four of them a defect in the horizontal canal was present. In 1900 Okada [9] collected 109 cases of cerebellar abscess from the literature. In fifty-two of these (47.7 per cent) pus was found in the semicircular canals at autopsy. Neumann [10] found that labyrinthitis was present in forty-nine cases (43.75 per cent) of a series of 112 cerebellar abscesses. In 1909 Hagener's monograph [11] on the subject was published. This study was based on the clinical and pathologic findings in seven cases of cerebellar abscess following labyrinthitis. In Blau's series [4] of eighty-eight cases, labyrinthitis was said to be the cause of the abscess in thirty-six instances (40 per cent), all due to a chronic otitis media. Eagleton's more recent analysis [5] of a collected series of 125 cases of cerebellar abscess is of interest. The parts of the labyrinth apparently responsible for the spread of infection to the cerebellum are indicated in the following table:

TABLE 3.—*Eagleton's Collected Series of Labyrinthogenic Cerebellar Abscesses*

	Cases	
Labyrinth proper	19	
Semicircular canals	6	
Vestibular aqueduct	11	
Retrograde thrombosis of vein of vestibular aqueduct	1	
Ductus endolymphaticus	5	
	17	
Internal auditory meatus	7	
Facial nerve	1	
	8	
Subarcuate hiatus	5	
Undetermined	1	
Total	56	(44.8%)

In his recent monograph on the subject of brain abscess as a whole, Atkinson [12] estimates that labyrinthitis is the cause of cerebellar abscess in 50 per cent of the cases secondary to chronic otitis media. In our series, for want of histologic studies of the petrous bone, extension from the labyrinth could be proved in but one case. It is possible that this was the route in some of the others in which the actual path was not determined.

Labyrinthitis* is almost invariably the result of chronic rather than acute otitis media. This is to be explained perhaps by the fact that necrosis of the binding ligaments of the round and oval windows is necessary to permit the ingress of infection by these apertures. Once inside, the process may involve the labyrinth as a whole or may be limited possibly either to the vestibule or the semicircular canals. Extension into the posterior fossa and the cerebellum may occur in a number of ways, *i. e.,* by erosion of the bony capsule of the posterior semicircular canal, by secondary involvement of the perilabyrinthine cells (probably a rare eventuality), by way of the aqueductus vestibule (ductus endolymphaticus) or aqueductus cochleae or, finally, by way of the veins draining the labyringth (Fig. 2).

‡ Gross erosions of the bone in this region are not necessarily followed by invasion of the posterior fossa, although at times the reaction within the dura which such a lesion provokes may simulate a cerebellar abscess. Radiographs of the petrous bone taken in the Towne position are very helpful in such cases.

* In this connection we are, of course, speaking only of actual invasion of the labyrinth by pyogenic organisms. Toxic or reactive labyrinthitis is a much more common complication of infections of the middle ear, but the symptoms are usually short-lived and tend to clear up, as a rule, when the local region is drained. The symptoms of toxic labyrinthitis, however, may be mistaken at times for those of cerebellar origin because of the vertigo and nystagmus which it provokes.

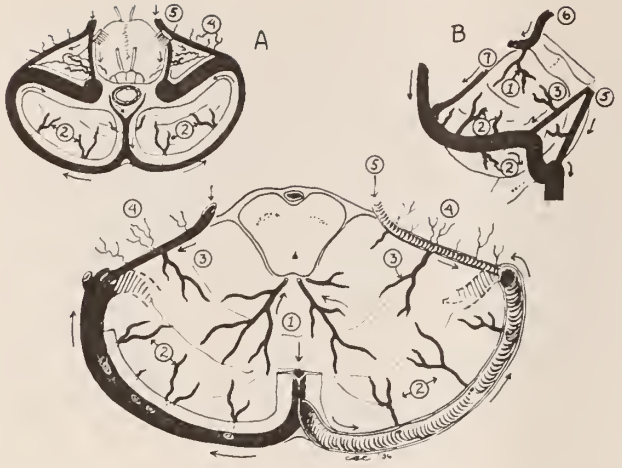

Fig. 3

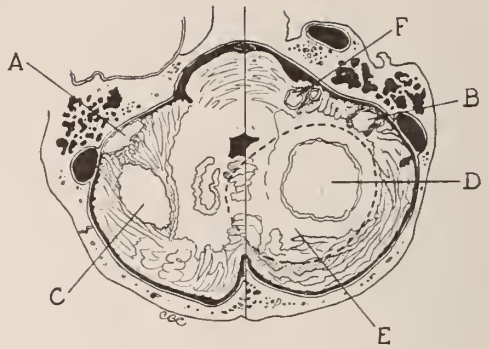

Fig. 4

Fig. 3.—Venous drainage of the cerebellum, showing connections with veins draining proximal part of the temporal bone. Arrows along channels indicate direction of flow. (1) Superior cerebellar veins emptying into veins of Galen [6]. (2) Superior and inferior cerebellar veins emptying into lateral sinus. (3) Superior cerebellar veins emptying into superior petrosal sinus. (4) Veins draining middle ear and labyrinth, emptying into superior petrosal sinus. (5) Point of origin of superior and inferior petrosal sinuses. (6) Small veins of Galen. (7) Straight sinus.

Fig. 4.—Types of otogenous cerebellar abscesses. (A) Subdural abscess. (B) Small interfoliar abscess. (C) Large interfoliar abscess. (D) Encapsulated central abscess. (E) Large circumscribed, but poorly encapsulated abscess.

The problem of determining what part of the labyrinth is involved in an autopsied case is scarcely of concern to a neurologist whose interest lies particularly in following the clinical course of a case from the symptoms of labyrinthitis to those of the consequent cerebellar abscess. It is rather a problem for the otologist—one with much time, patience, and a flair for histologic investigation.

The actual mode of invasion of the cerebellum in labyrinthitis differs greatly, depending upon the actual route followed. Extension by contiguity is probably the rule. Dural involvement in variable degrees is usually present except in instances of vascular spread.†

THE VENOUS ROUTE

The arrangement of the venous channels in this region makes possible an extension into the cerebellum by this route (Fig. 3). At the upper and outer tip of the cerebellar lobe the superior petrosal sinus empties into the genu of the lateral sinus. Veins draining the cerebellum empty into the horizontal portion of the sinus or into the superior or inferior petrosal sinuses. A direct channel for communication of infection from the involved bone in this region into the cerebellum is thus established.

The possibility of involvement of the cerebellum by infection secondary to thrombosis of the lateral sinus was recognized by Macewen.[13] He was able to trace the process into the cerebellum by way of the cerebellar veins. Blau [4] found thrombosis of the lateral sinus in forty-four of a series of 133 cases of cerebellar abscess. In Eagleton's collected series of 125 cerebellar abscesses,[5] sinus thrombosis was present in forty-one cases (32.8 per cent). He believed that thrombosis of the lateral sinus might be either the cause or the result of a cerebellar abscess. Atkinson [12] believes that in acute otitic infections the route to the cerebellum was by way of the lateral sinus in 50 per cent of the cases. In our series of sixteen cases the lateral sinus was the probable route in three and the possible route in two others.

A retrograde extension into the cerebellum by way of the venous channels is usually preceded by the formation of an infected thrombus in these channels. It is probably possible, however, for this retrograde extension to occur without the formation of a thrombus occluding the channel, such as is the case of distant abscesses of the cerebral hemispheres.[14‡]

When infection follows the venous channels, the abscess may be located in relatively more distant parts of the organ, because the larger portion of the cerebellum is exposed to possible lodgment of organisms by these channels.* If multiple regions should become infected, multiple abscesses will result; unless perchance these foci are in close enough proximity to become confluent.

The first lesion is probably an area of hemorrhagic softening incident to obstruction of the venous pathways. The hemorrhagic foci are due to a rupture of the smaller venules drained by the involved vein. The softened tissue in this region

† One mode of spread has been the subject of considerable discussion, that by way of the ductus endolymphaticus, with a resultant *interdural* abscess or abscess of the saccus endolymphaticus. The condition, a rare one, has been ably discussed by Körner and Grünberg (*Otitischen Erkrankungen,* pp. 39, 40).

‡ In this connection, infection by direct penetration through the sinus should also be mentioned. In such a case the abscess results from an extension of an infected thrombus through the posteromedial wall of the sinus into the subdural space and from thence into the cerebellum. This does not seem to be a very common method of invasion of the cerebellum.

* Eagleton has divided the cerebellum into an anterior one-third, in which adjacent abscesses are apt to occur, and a posterior two-thirds in which abscesses due to thrombosis of the lateral sinus may be found. This division is not entirely consistent, because it is possible for large adjacent abscesses to extend into the posterior portion of the hemisphere. Furthermore, through involvement of the superior petrosal sinus and its afferent veins, the anterior part of the cerebellum is also exposed to infection via the venous route.

furnishes an excellent medium for the organisms which invade it secondarily. The size of the abscess will at first be limited by the extent of this softened region. But it is also possible for secondary abscesses to form if the organisms are of sufficient virulence.†

POSTOPERATIVE ABSCESS

On reviewing the literature on otogenous abscess, one occasionally finds a report of a case in which an abscess was finally found to be present in the temporal lobe or cerebellum. More careful scrutiny will often disclose the fact that the affected part had been repeatedly probed through the contaminated mastoid wound. We are convinced that it is not only possible but very likely that infection is carried into the brain on the exploring needle. The organisms find an excellent medium for growth in the traumatized tissue. In our study on the pathogenesis of temporal abscess,[1] attention was drawn to this possibility as one of the ways in which organisms may gain entrance to the brain. No such instance was found in this series of cases verified at autopsy.

SUMMARY AND CONCLUSIONS

1. Abscesses in the cerebellum are predominantly otogenous, the relative incidence being much higher than in other portions of the brain. This is probably to be explained by the relative inaccessibility of the cerebellum to infective emboli arising in more distant situations. In a series of fifteen thousand autopsies, twenty-two cases of isolated cerebellar abscess were found, twenty-one of which were of otitic origin.

2. Otogenous cerebellar abscess is more common in males, although less so than temporal abscesses. It is more common in the second and third decades of life, which is contrary to the opinions of some. It is probably more common after chronic than acute infections, because the route is usually less direct and calls for the involvement of intervening structures. The lesion seems slightly more frequent on the right side.

3. The routes of infection from the middle ear to the cerebellum are often devious and at times complex. Often two or more possible modes of extension are present in a single case, and it is not so easy to decide which is responsible, as some reports would lead us to believe. Organisms may reach the posterior fossa (1) by way of preformed channels (although such extension is more apt to cause meningitis); (2) by way of adjacent cell groups (most commonly those in the petrous angle); (3) by way of the labyrinth (where again the actual route of extension into the cerebellum may be by any one or more of several routes); (4) by way of connected venous channels; and (5) by surgical implantation. In our series of sixteen autopsied cases, extension was by way of the petrous angle in seven cases (with two others possibly by this route), by way of the lateral sinus in three others (with two additional ones uncertain). Labyrinthitis was responsible for the abscess in only one definite instance, although it was possibly responsible in two questionable cases as well, since no other possible route was demonstrated. In one case of multiple small abscesses of the middle cerebellar peduncle, infection was secondary to leptomeningitis. In still another case there was both erosion in the petrous angle and thrombosis of the lateral sinus. Undoubtedly in many cases a combination of two or even more of these routes may be followed to reach the cerebellum.

4. The number, type, and location of otogenous abscesses of the cerebellum are dependent upon the route of infection, the anatomic relationships of the structures in this region and the peculiar structure of the cerebellum.

5. Attention is drawn to small abscesses of the middle cerebellar peduncles secondary to exudate (leptomeningitis) in the lateral cistern.

6. In abscesses resulting from extension of infection through Trautmann's triangle, dural and subdural infection are almost invariably the rule and constitute an important and characteristic pathologic picture.

7. Extension by way of the venous channels may result in abscesses in relatively distant parts of the cerebellum. In such instances multiple abscesses may be present.

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† In this connection other possible lesions in the posterior fossa secondary to thrombosis of the lateral sinus should be given consideration, namely, subdural abscess, subdural hemorrhage, and uncomplicated red softening of the cerebellar tissue. These lesions have been described elsewhere.[7]

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DISCUSSION

Carl W. Rand, M.D. (1023 Pacific Mutual Building, Los Angeles).—It gives me particular pleasure to discuss this paper of Doctors Courville and Nielsen. During the past five years they have given much time and close, critical attention to the various modes of brain-abscess formation and dissemination.

I have long been impressed by the fact that cerebellar abscesses are less well encapsulated than those of the cerebrum. This seems to be the case at any time during the life history of the disease. Not infrequently a poorly encapsulated cerebellar abscess may be successfully drained. Poor encapsulation of a cerebral abscess, on the other hand, spells a poor prognosis from the standpoint of drainage. The relatively poor encapsulation of cerebellar abscesses the authors explain by the fact that the abscess frequently forms between the layers of the folia, rather than deep in the substance of the lobe.

The high incidence of lateral sinus thrombosis and labyrinthitis, as precursors to cerebellar abscess, is emphasized. This should make the clinician watchful. When either a lateral sinus thrombosis or labyrinthitis does not clear up with appropriate treatment, a possibility of cerebellar abscess formation should be kept in mind.

It is my belief that cerebellar exploration should be made through a clean field, rather than by way of the mastoid wound. A wide exposure is not necessary and is contraindicated. Care should be taken not to open the large, neighboring subarachnoid spaces, as the danger of spreading meningitis would thereby be greatly increased. It has been my custom to drain cerebellar abscesses through a catheter, the abscess having first been located by an exploring ventricle needle. The catheter is then firmly anchored to the dura, fascia, and scalp with silk; and, secondarily, fortified by a safety-pin anchored to the scalp with adhesive tape. The drain is undisturbed for six weeks, and then gradually shortened each week for the next six weeks.

Generally speaking, cerebellar abscesses are somewhat less favorable for drainage than cerebral abscesses. The nature of the anatomy and greater inaccessibility of the cerebellum accounts for this. Many of these patients have secondary internal hydrocephalus, are often greatly dehydrated, and are subject to acidosis from repeated vomiting. Most of the cerebellar abscesses which have come to my attention have been in children.

Rupert B. Raney, M. D. (727 West Seventh Street, Los Angeles).—After an infection crosses the thin barrier (dura mater) separating the fields of otology and neurology, the burden of responsibility falls upon the neurologist and, in a few cases, upon the neurosurgeon. It is, therefore, obvious that the routes of extension, which have been most ably described by the authors, should be familiar to all concerned. If the otologists felt as keenly about the subject as the authors no doubt do, and were more conscious of the ever present dangers of lingering infection about the middle ear and mastoid cells, regardless of how trivial, and of the open doors to the subdural space constantly inviting, I am sure there would be less local palliative treatment and more radical handling of the disease.

When an infection extends beyond the dura, one or all of three things may develop: (1) meningitis, (2) encephalitis or (3) abscess formation. If the latter occurs, the neurosurgeon must meet the situation. Many operative procedures have been designed, but in most instances they have met with failure beyond hope or expectation. In the latter part of the nineteenth century, Macewen reported a simple method of drainage with decalcified chicken bone, having met, beyond doubt, with greater success than any other surgeon, and his technique was applicable to an abscess in any location. Cushing recommended enucleation in certain well-encapsulated forms, and this method is still practiced with success in well-selected cases by Horrax, Bailey, and others. Cahill is exceedingly enthusiastic over decortication of the outer wall and allowing herniation. It is evident from his reports that large, well-encapsulated superficial abscesses made up the greater amount of his material. Coleman strongly advised the simple catheter method. Adson recommends opening of the capsule and packing with iodoform gauze. Most reports on radical treatment have dealt with a very desirable form of well-encapsulated superficial abscess. Formerly we used the catheter method, but since the abscess was decompressed to some extent on location with a ventricle needle, and because it was our belief that reinsertion of a catheter indented the capsule and opened up new avenues for the spread of infection, we discontinued this method. More recently we have been using a goose quill with most gratifying results. It affords better drainage, more satisfactory scalp fixation, and obviates removal and contamination, as well as decompression and greater trauma, produced by any other method.

From the foregoing statements it is clear that complications secondary to otitis media and mastoid disease lead to an exceedingly grave situation; and a better understanding of the pathogenesis, in which the authors' contribution plays no little part, should lead to prevention rather than treatment in an increasingly higher percentage of instances.

Frank E. Detling, M. D. (500 South Lucas Avenue, Los Angeles).—The courage of the authors to delve into 15,000 autopsies and classify the findings scientifically is to be praised, for we know that it meant the expenditure of much time and energy. The paths of infection, as described by them, coincide with the findings as generally accepted by most of the other investigators.

In the remarks about the petrous tip being a possible source of brain abscess, the authors state that they did not believe that infection in the petrous tip could produce an abscess of the brain, and that they did not know of a single case where a petrous infection caused such an abscess. In a symposium before the American Otological Society at Toronto in 1935, Doctor Seydell, on the subject of petrositis, reviewed the literature of cases reported during the year of 1934. He collected forty-one petrositis cases for that year, three of which developed brain abscesses, all of the cerebellar type. Doctor Eagleton reported a case of cerebellar abscess following a petrositis.

As the authors remarked, the line of demarcation between the various specialties is at times difficult to define, only the thin dura separating the brain surgeon from the aural surgeon.

In the authors' report of twenty-two cases of cerebellar abscesses, twenty-one resulted from otitic infection; hence, it is at all times difficult to know just where the work of one specialty stops and the other begins. As a whole I am convinced that the brain surgeon is in a better position to manage most cases of brain abscess, his expert knowledge and experience being needed to diagnose and localize the abscess; but there are also quite a number of brain abscess cases where the abscess is so superficial and close to the mastoid area that the aural surgeon is often justified, and he would be quite negligent in his professional duties if he did not open the very evident abscess. At times he could not get away from inserting the proper drain, as the abscess connects directly with the mastoid field. In this particular type of brain abscess, nature has walled off the surrounding meninges and brain tissue, and there cannot possibly be any danger of spreading the infection.

In these cases that have to be explored to locate the abscess there may be some justice in the argument that it is better to explore through a clean field; but much the same criticism can be charged to the brain surgeon, that of draining a brain abscess through an uninfected field, causing a possible encephalitis and meningitis. Both of these theories of spreading infection are possible, but highly improbable.

That practically all cerebellar abscesses are secondary to otitic infection clearly show the very close association of these two specialties in this particular field and shows us the necessity and desirability of closely coöperating, and in that way serving the patient in the best possible manner.

THE LURE OF MEDICAL HISTORY†

JOHN R. HAYNES, M.D.

MEMBER OF LOS ANGELES COUNTY MEDICAL ASSOCIATION: CELEBRATES HIS EIGHTY-FOURTH BIRTHDAY

DR. JOHN R. HAYNES, still an active member of the Los Angeles County Medical Association, recently celebrated his eighty-fourth birthday. Because of the important civic position which he has held as president of the Los Angeles Board of Water and Power Commissioners (the power system is the largest municipal electric plant, and the water the second largest municipal water supply system in the United States) his eighty-fourth birthday was commented on in the public press.

For the information of readers, some biographical and other data are appended concerning this California physician, whose career in civic work, during a later period, parallels somewhat the achievements of another even older member of the Los Angeles County Medical Association, Dr. Joseph P. Widney, concerning whom special mention was made in this and previous issues.*

Quotations follow:

From the Los Angeles *Herald-Express:*

A permanent partnership between employer and employe.

A complete dissolution of both political parties of today and organization of two new parties, Liberals and Conservatives.

Complete ownership of all public utilities.

Downfall of all dictatorships.

These were the predictions for the next fifty years made by Dr. John R. Haynes, "grand old man of municipal ownership," on the occasion of the celebration of his eighty-fourth birthday.

For more than fifty years Doctor Haynes has been an outstanding civic leader in this city, and scores of representatives of civic bodies joined with him in the celebration yesterday at his home, 2324 South Figueroa Street. . . .

Doctor Haynes, President of the Board of Water and Power Commissioners, of which he has been a member since 1921, is a strong advocate of the Civil Service merit system and was a Civil Service commissioner for twelve years. He is widely known for his civic activities and has been termed "the father of the initiative, the recall, and the referendum."

Los Angeles was the first United States city to incorporate in its organic law provisions for recall of public officers, and Doctor Haynes is credited with being responsible for the act. Starting in 1900 he served on every board of freeholders that has drafted city charters under which the municipality has operated. He also is a regent of the University of California. . . .

* * *

From the Los Angeles *Times:*

"I'm forgetting my birthdays now," said Dr. John R. Haynes yesterday.

But he will be eighty-four years old today. He is hale and hearty, in excellent health, and serving his fellow citizens most valuably as president of the Los Angeles Board and Power Commissioners.

"The best thing of the year for me," said Doctor Haynes, "was our great achievement in finally purchasing the electrical system of the Los Angeles Gas and Electric Corporation."

†A Twenty-Five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of CALIFORNIA AND WESTERN MEDICINE. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.

* See page 2 (editorial).

JOHN R. HAYNES, M.D.

From the Los Angeles *Examiner:*

Dr. John R. Haynes, the "grand old man of municipal ownership" in Los Angeles, blew out the candles on his birthday cake in the quiet parlor of his Figueroa Street home yesterday and settled back in his chair to talk of his fifty years in the city and of things to come in the next fifty years.

He was eighty-four years old. During the last half-century, as a liberal whose faith would not fail, he had served his city, his state, and his country; his creed, democracy, and his cause, municipal ownership. Since 1921 he had served as a member of the Water and Power Commission. . . .

The achievement Doctor Haynes finds most pride in was the writing into the California Constitution of the initiative, referendum, and recall, California being the first state to adopt these measures, which were considered ultra-liberal at the time of their proposal.

Excerpts from a biographical sketch in "The Medical Profession of Southern California, 1910:

HAYNES, John Randolph, Los Angeles, California. Born at Fairmont Springs, Pennsylvania, June 13, 1853; of English-American descent. Attended the University of Pennsylvania, receiving the degree of M.D. in 1874. Came to California in 1887. In private practice in Philadelphia, 1874-1887; at Los Angeles since that time. Member of the Los Angeles Civil Service Commission for six years and president of the Board for two years. Associate Professor of Gynecology, College of Medicine, University of Southern California, 1889-1891. Member of the Los Angeles County Medical Association, the Medical Society of the State of California, and the American Medical Association. President of the Direct Legislation League of California and of the Severance Club and Economic Club of Los Angeles. Member of the California University and Sunset Clubs of Los

Angeles, the Golf Club of San Francisco and of the National Liberal Club of London, England. Member of the California Association of the Sons of the Revolution and of the California Society of Colonial Wars. Member of the Child Labor Committee of different organizations. Has written papers on medical and surgical subjects. Married Dora Fellows, March 14, 1882.

THE MEDICINE OF THE ANCIENT JEWS

By Hyman Miller, M.D.
Los Angeles

THE dawn of Jewish history reveals a culture different from other cultures by its singular monotheistic religious philosophy. Knowing, as we do, that the roots of all early medicine are inextricably interwoven with the foundations of primitive religions, and that they have become separated only in our comparatively recent scientific period, it is strange that this new religion did not give rise to a characteristically Jewish medicine. Still more strange is it that, with the development of this monotheistic Jehovah cult and its clear emphasis on the first commandment, "I, the Lord, am your God, you must have no other gods beside me," the Jews, accepting Jehovah, and Jehovah alone as the Physician of their souls, did not retain Him as the Physician of their bodies. Paradoxical as it may be, the fact remains that the early Jews were monotheistic in their religion and pantheistic in their medicine. And this, despite the explicit interdiction in Leviticus, "Do not turn to medicine or magicians. If there is a man or woman who is a medium or magician, he or she must be stoned to death!" But perhaps this ordinance was only meant, after all, to guard the professional mysteries of the theologians.

THE BIBLE, THE TALMUD AND THE KABBALAH

What we know of early Jewish medicine is to be found in such documents as the Bible, the Talmud and the Kabbalah. Each of these shows that the medicine practiced must have differed but little in its essentials from that practiced by all early peoples. There is the usual admixture of primitive and folk medicine with religio-medical modifications and elaborations. The earliest document, the Bible, appears to approach scientific medicine more closely in its implications than either of the later documents, for in Leviticus are laid down laws of social and personal hygiene which even yet seem rational and founded on observed and well-interpreted facts. If anywhere, it is in these laws of hygiene that a uniquely Jewish medicine appears. In the Talmud the concern with medical matters occurs merely incidental to the attempts to interpret the law. In other words, their discussion was merely an exercise in ecclesiastical dialectics, and in no way related to the scientific attitude exhibited by such observers as Galen and Hippocrates. The Kabbalah is so permeated by mysticism, magic, and devil worship that its interest as a medical document is only in its confirmation of what will be said with regard to these essentials of early medicine.

To relate what medical, surgical, and pathologic observations are enumerated in these books is merely to list a set of quotations of rather doubtful significance for our purpose. For instance, to know that these ancients were acquainted with amputations, fractures, dislocations, cesarean section, trephining, hemophilia, leprosy, diphtheria, and skin diseases, and with the appearance of certain organs in health and disease, is merely to comment on the fact that the early Jews had eyes and could see. Of greater significance, as regards our interest, concerns what they did to prevent and cure disease, for only from this can we obtain some idea as to their concept of disease.

THE PROFESSIONAL PHYSICIANS AMONG THE ANCIENT JEWS

There were professional physicians among the ancient Jews; physicians of the body, yet not religious men. Of them we, unfortunately, know but little. In Genesis it is said that Joseph "commanded his servants, the physicians, to embalm his father." And in Chronicles it is said that King Asa consulted physicians instead of the Lord, and "slept with his fathers for his pains." A more pleasant outcome being desirable and numerous prophets being available, miracles are much more commonly mentioned in the Bible than testimonials to the servant-physician.

THE "UNTOUCHABLE"

The high priests were the important health officers, and to them was given the duty of enforcing the hygienic laws laid down in Leviticus. It will be of interest to examine these laws, not in the light of modern science but of what we now know relating to their probable origin. The laws concerning isolation and quarantine, personal cleanliness, and foods, have long excited admiration and wonder, not to say pride in the far-seeing sagacity of the ancient religious leaders; in fact, some enthusiasts have gone so far as to ascribe a profound knowledge of bacteriology and Darwinism to the prophets. Despite such enthusiasm, however, there is some question as to whether these laws were the result of scientific reasoning or were more closely related to the taboos of other primitive and perhaps not so primitive peoples. It must be pointed out that what was holy was untouchable (tabooed). As time went on, the two ideas became confused in the minds of the people, and what was untouchable became unclean. From an examination of Biblical laws of hygiene it is difficult to learn whether uncleanness or untouchableness necessarily meant something physically harmful or something sanctified. This is well brought out in Frazer's[1] discussion of the well-known proscription against eating the flesh of the pig.

"The pig ranked as a sacred animal among the Syrians. At the great religious metropolis pigs were neither sacrificed nor eaten; if a man touched a pig he was unclean. Some people said this was because the pigs were unclean, others said it was

because the pigs were sacred. This difference of opinion points to a hazy state of religious thought in which the ideas of sanctity and uncleanliness are not yet sharply distinguished, both being blent in a sort of vaporous solution to which we give the name of taboo. The Greeks could not decide whether the Jews worshiped swine or abominated them. On the one hand, they might not eat swine; but, on the other hand, they might not kill them. And if the former rule speaks for uncleanness, the latter speaks still more strongly for the sanctity of the animal." "Down to the time of Isaiah some of the Jews used to meet secretly in gardens to eat the flesh of swine and mice as a religious rite. Perhaps all so-called unclean animals were originally sacred; the reason for not eating them was that they were divine. The idea of uncleanness was further associated with sanctity by the general belief that eating of sacred animals, except during religious ceremonial, caused various diseases. It was a common belief that the effect of contact with a sacred object must be removed by washing before a man was free to mingle with his fellows." Thus, Jews wash their hands after reading the sacred scriptures, and before coming forth from the tabernacle after the sin-offering the high priest had to wash himself and put off the garments which he had worn in the holy place. It is obvious that what was sacred was also dangerous. As further evidence of the confusion between sacred and clean, and profane and unclean, is the frequent interchanging of the sense of these words by Moses as recorded in Leviticus.

THE ATTITUDE TOWARD BLOOD

The attitude toward blood further emphasizes this lack of distinction. Thus, in Leviticus, "If anyone belonging to the house of Israel eats any blood, against the person who eats blood I will set my face and will cut him off from his people, for the life of the creature is in the blood." And then we find in the same book that a woman is unclean during her menses and after childbirth, although only for one week after the birth of a boy and as a concession to a masculine-minded era, for two weeks after the birth of a girl. We must, therefore, conclude that this uncleanness arises from some such evolution of thought as this: that blood contains the soul; the soul is sacred; what is sacred is untouchable; what is untouchable is unclean; ergo, a bleeding woman is unclean. It is on this type of reasoning that many religious rites, with apparently rational hygienic foundations, are based.

CIRCUMCISION

Another type of apparently rational hygienic law, a product of purely fortuitous circumstance, is the rite of circumcision. There is perhaps no Jewish rite whose origin is seemingly so inspired by a feeling for personal hygiene on the part of the early fathers. And yet, its origin is undoubtedly not Jewish, for it was and still is practiced among the most primitive of peoples, being associated with the symbolic worship of fertility and the maturation of the sexes. The association with sex worship is obvious, sex orgies forming part of the ritual marking the growth to manhood of the adolescent. In many tribes, this is carried on in a wholesale manner, taking the place of our more enlightened modern confirmations. The maturing of youth furnishes the motive among some primitive peoples for making the rite of circumcision a means of trying the stamina of its young men before admitting them to equality with their elders. In its extremest form we have that type of circumcision which includes a flaying of the pubes, groin, penis, and scrotum as practiced by a certain tribe in Africa, described by Burton.[2] "The candidate, usually from ten to twelve years old, is placed upon raised ground, holding in his right hand a spear whose point shows every tremor of the nerves. The priest first makes a shallow cut, severing only the skin across the belly immediately below the navel, and a similar incision down each groin. Then he tears off the skin from the transverse cut downward and flays the testicle and penis, ending with amputation of the foreskin." Thus we arrive at a grotesque and horrible religious rite, developing from a procedure which probably began as a mode of diminishing sensibility and prolonging the pleasures of coitus, a not unusual genesis for religious ceremonials.

So far as the the Jews were concerned, circumcision became a sign of alliance between the Creator and the Chosen People. Only during the Desert Wanderings was circumcision suspended, being resumed by Joshua, who, having forty years of preputial growth to harvest, is said to have cropped some two tons of foreskins. This wholesale garner is what probably led to circumcising of enemies, prepuces becoming trophies of victory just as scalps were trophies among the American Indians. It is said that the victims who survived this operation, as also Apostate Jews, found means of successfully stretching the amputated covering to somewhere near the modest length needed to differentiate them from professing Jews. Other aspects of circumcision as a religious rite or hygienic measure might be discussed, but enough has been told to make us a bit modest in judging the scientific genius of the ancient spiritual leaders.

TREATMENT OF DISEASE

When we come to the treatment of disease as practiced among the Jews, we are more than ever impressed with the influence of early primitive magic, mysticism and devil worship upon the medicine of that time. It must be remembered that among the ancients, disease was usually considered an evidence of God's wrath. It is, therefore, logical, as we find throughout the Bible, that disease should frequently have been treated by prayer, placation and cajolry, by burnt offerings and sacrifices. Fetish worship—that is, worship of symbols—was common, and we can recall what anguish the "graven images" gave to all the prophets from Moses down. In view of the fact that this was but a manifestation of an almost instinctive belief among all primitive peoples, it is no wonder that the long-laboring prophets had so much difficulty. Shamanism—the belief in a

Great Spirit accompanied, however, by many lesser spirits—was universal. In many instances it was these lesser spirits who were held responsible for disease and misfortune, and to placate them their images were set up, and these being confused with reality the images themselves were worshiped, and burnt offerings and sacrifices and bribes made to them. It is not strange, then, that the Jews did not readily overcome their fear of the many baleful spirits about them.

Aside from attempts to placate and exorcise evil spirits, treatment by sympathetic magic and psychotherapy, and autosuggestion were resorted to. From these latter we still have a certain heritage in Christian Science and Jewish Science. Talmudic references to mystical-magical-religious medicine (sympathetic magic) are numerous. Incantations are frequently used. To get rid of boils, say "Bazbaziah, masmasiah, cascasiah, sharlai, armalai." Such Jewish abracadabras are common, and many of the proverbs were used for similar purposes.

To ward off the "evil eye," amulets were worn; and this development of a religious rite from a magical source will perhaps be best brought out by tracing the origin of the wearing of tephillin or phylacteries. Tephillin were evolved from the old amulets worn by the Babylonians and, being adopted by the Jews, became, as time went on, first an evidence of Jewish nobility and later a religious symbol. In the olden days tephillin used to be worn both in and out of doors, which is rational enough in view of the fact that, in order to ward off evil, the tephillin must be worn constantly and exposed to view. The talmudic rabbis, wishing to destroy the more or less idolistic implications of this symbol (the wearing of which had gradually assumed a definitely religious significance), and yet having to overcome the express directions in the Bible which state that the tephillin should be "to thee a sign," changed this to read: "to be a sign to thee, and not to others," and, as a result, tephillin became a sign to be worn in the privacy of the home. What has been said of the tephillin may also be said of the mezuzah (doorpost amulet) and the tsitsis (sacred fringes).

Another example of sympathetic magic applied to healing is the use of numerology, based on a belief in the mystic properties of numbers. Thus, for the treatment of tertian fever, "It is recommended that seven small grapes, from seven different vines, seven threads from seven different webs, and seven nails from seven different bridges, and seven quantities of dust from seven different door holes, seven grains of caraway seeds, and seven hairs from the under jaw of an old dog, be put, with a papyrus fiber, in the hollow in the front of the neck."

The medicine of the Jews relied greatly, as in all folk medicine, on the use of herbs. Although at times it would appear that certain keen observers among the earliest practitioners actually stumbled on specific and efficacious remedies, we must remember that herb treatment was directed against the evil spirit which had entered the body of the sick. Each herb was supposed to be endowed with one or more of the attributes of the many spirits hovering about and, following the Shamanistic reasoning of "like cures like," these herbs were administered to drive out the evil spirits from the body. In much the same manner we have the application of Drekapothek, or the use of obnoxious and disgusting matter as medicines. Thus, the Talmud says, "Whosoever suffers from mouth disease may have dung administered to him on the Sabbath."

EXAMPLES OF SYMPATHETIC MAGIC

Perhaps the best exposition of the many phases of sympathetic magic is found in the following example of the treatment of leprosy as given in Leviticus: "Bring two birds. Kill one over fresh water. Take the live bird, with cedar wood, scarlet string, hyssop, dip them and the live bird in the blood of the killed bird and sprinkle it seven times upon the one who is to be cleansed of leprosy, and then set the live bird free in the open country. Then the leper makes a sacrifice to God (guilt offering) and the priest makes a sin offering in atonement." Keeping in mind the principles of sympathetic magic, this mystical operation becomes logical and clear, for there we have the fresh water washing away the sin (*i. e.*, the disease), the live bird represents health, the cedar wood the green vitality of life, the scarlet string the redness of soul-containing blood, the hyssop a strength-giving herb, the mystically favorable number seven, and the live bird set free as the scapegoat, taking on all the sins and evils of the afflicted one. Then the guilt-offering to placate God and the sin-offering to repay Him for His trouble.

IN CONCLUSION

All in all, therefore, the medicine of the ancient Jews differed but little from that of their predecessors and neighbors, nor do we find any explanation of the persistence of its pantheistic character after the firm establishment of a monotheistic religion. Yet we are impressed by the seeming purposefulness of many of the inspired religio-medical laws which so nicely dovetail into our present concepts of the prophylaxis of disease.

672 South Westlake Avenue.

REFERENCES

1. Fraser, Robert: The Golden Bough.
2. Burton, Richard: The Supplemental Arabian Nights.

FITCH C. E. MATTISON, M.D.
1861-1932

DEDICATION OF A BRONZE PLAQUE IN LIBRARY OF LOS ANGELES COUNTY MEDICAL ASSOCIATION

ON Thursday evening, May 13, a bronze bas-relief plaque of the late Dr. Fitch C. E. Mattison, President of the California Medical Association in 1913, was unveiled in the headquarters of the Los Angeles County Medical Association.

The program of the evening was presented under the auspices of the Certified Milk Commission of the Los Angeles County Medical Association, which was established in 1906 by a committee consisting of the late Dr. Fitch C. E. Mattison, the

Bronze bas-relief plaque of the late Fitch C. E. Mattison Unveiled and placed in the library of the Los Angeles County Medical Association on May 13, 1937

late Dr. Stanley P. Black, one-time professor of pathology of the College of Medicine of the University of Southern California, and the late Luther M. Powers, for a long period health officer of Los Angeles, and Dr. George H. Kress. Doctor Mattison and Doctor Kress officiated, respectively, as chairman and secretary of the Certified Milk Commission for more than twenty-five years, and this Certified Milk Commission has donated to the Los Angeles County Medical Association for certain purposes, moneys to the amount of some $20,000.

The Board of Trustees of the Los Angeles County Medical Association, through Dr. Donald C. Frick, Chairman, presented the plaque to the Library Committee, of which Dr. George Dock is chairman.

The plaque was then unveiled by Doctor Mattison's daughter, Mrs. Bess M. Behr. The main address of the evening was by Paul Popenoe, Ph.D., whose topic was, "Perpetuation of the Traditions of Medicine." Other talks were given by Miss Maud Daggett, the sculptress of the plaque; by Dr. George H. Kress, who spoke of the early days and experiences of the Certified Milk Commission; by Dr. Leroy B. Sherry, on "Pasadena's Tribute to a Beloved Son," and by Dr. Harlan Shoemaker, who referred to the great services which the Certified Milk Commission had rendered to the citizens of Southern California.

CLINICAL NOTES AND CASE REPORTS

NORMAL PREGNANCIES AND DELIVERIES IN BICORNATE UTERI*

By M. G. Beaver, M.D.
Redlands
AND
K. H. Abbott, M.D.
Ontario

ALTHOUGH bicornate uteri have been known to exist for several centuries, it was not until a few decades ago that interest was aroused in the occurrence of pregnancy in these malformed uteri. It was Mauriceau and Vassal[1] who, in 1669, recorded the first case of pregnancy in a rudimentary horn of a bicornate uterus. It was not until the beginning of the twentieth century, however, that interest in this condition again came to light, although occasional cases were reported before this. An excellent review of the subject was made by Van der Velde[2] in 1915, and in 1922 Miller[3] collected fifty-four cases of uterus didelphys. In this series there were sixty-seven pregnancies, of which 61 per cent went to term. His studies included only those cases of separate uterus and cervix, and not the bicornate types (uterus bicornis, unicollis, septus, etc.) In reviewing the literature from 1922 to the present writing (July, 1936), we have found reports of 246 cases of malformations of the uterus, including double uterus and cervix (uterus didelphys), double fundus and one cervix, and uteri with rudimentary horns. There are, no doubt, others which we have missed.† Due to the incompleteness of many of the reports, it was not possible accurately to determine the number of pregnancies which occurred or the percentage of which went to term. However, it did appear that the number of pregnancies and percentage of these that went to term would be about the same as reported by Miller; yet it is possible there may have been a larger per cent of spontaneous abortions in this series.

From the foregoing it is evident that pregnancy in bicornate uteri is not rare; on the contrary, every physician doing a gynecologic and obstetrical practice must keep it in mind in every patient he sees. It is because of this and of our blunders in two such cases that we here present two cases of bicornate uteri.

REPORT OF CASES

Case 1.—Mrs. M. T., a Mexican, age twenty-three years, entered the San Bernardino County Charity Hospital on November 12, 1935, complaining of intermittent

* From the department of surgery of the San Bernardino County Charity Hospital, San Bernardino.

1 Mauriceau and Vassal (1669): Quoted by Delée, Joseph B. The Principles and Practice of Obstetrics, p. 560, 1933. W. B. Saunders Company, Philadelphia.

2 Van der Velde, Geburtsstörungen durch: Entwicklungsfehler der Gebärmutter, Monatschr. f. Geburtsch. u. Gynäk. Berl. 42: 307-321, 1915.

3 Miller: Clinical Aspects of Uterus Didelphys, Am. J. Obst. and Gynec., 4: 398-408, St. Louis, 1922.

† The literature has become so voluminous and cumbersome we have not attempted to include a complete bibliography in this contribution.

Fig. 1.—Drawing of bicornate uterus (Case 1).

vaginal bleeding, beginning ten days previous, when she passed what she thought was a fetus. Her last period was normal on September 25, 1935. She had had frequency, urgency, and burning on urination six weeks prior to this, with a persistent, moderate vaginal discharge since then. She had given birth to three children, of six, four, and three years, respectively, who are now living and well. Each delivery was normal, and the siblings weighed from six to seven and one-half pounds at birth. Examination of the patient revealed a well-developed Mexican female. There was no vaginal bleeding, but there was a tender, somewhat fluctuant mass, measuring about 8 by 4 by 3 centimeters, in the right adnexal region. The fundus of the uterus was palpable just to the left of the midline; it was about normal in size. Because of the presence of a mass, together with a mild leukocytosis and elevated temperature and pulse rate, a diagnosis of tubo-ovarian abscess was made. On November 22, 1935, a laparotomy was performed and a bicornate uterus was found. The two fundi were united at the cervix, but were otherwise separate. The right fundus measured about 11 centimeters from its fusion with its mate at the cervix to the top, and was about 7 centimeters wide at its greatest diameter. This uterus was the mass we had mistaken for a tubo-ovarian abscess, and was obviously subinvoluted. The other corpus was small and of nearly normal size, measuring 5 by 3 by 2½ centimeters. On the lateral aspect of each were broad and round ligaments, fallopian tubes, and ovaries. The round ligament on the right was about three or four times the diameter of that on the left, the latter of which was approximately of average normal size. The space between the fundi received a portion of the urinary bladder. The patient was sterilized at her request, and the abdomen was closed. She had an uneventful postoperative recovery. Diagnosis: Bicornate uterus with normal adnexa and incomplete involution of the right corpus following a complete abortion.

* * *

Case 2.—Mrs M. R., age thirty-one, entered the San Bernardino County Charity Hospital on January 12, 1936, complaining of pain of ten to twelve years' duration in the left lower quadrant, but much worse for two weeks, and accompanied by moderate vaginal bleeding. Prior to this her periods had been regular and the patient was sure she was not pregnant. Her menarche was at the age of thirteen years, with subsequent and normal periods except for an occasional dysmenorrhea. She has one living child, a thirteen-year-old girl who apparently is normal. Pelvic examination revealed only mild bleeding from the uterus, with a "sense of fullness in the left adnexal region with bilateral tenderness." It was thought that she might have either an ectopic pregnancy or a pelvic cellulitis. A laparotomy was performed on January 15, at which time a ruptured ectopic pregnancy was found in the left fallopian tube. The uterus was bicornate, the one on the left being a little larger than the normal nonpregnant uterus with only one tube. Blood-clots surrounded the distended tube and hemorrhagic ovary. The tube contained the products of conception of about a six weeks' gestation. The corpus on the right measured about 3 centimeters in its greatest transverse and anteroposterior diameters by 6 centimeters long. On the *anterosuperior* aspect of it were two pieces of what appeared to be ovarian tissue, the upper one measuring about 1.5 by 1 by 1 centimeter and the lower one about 1 centimeter in diameter. There was an apparently normal, average-size ovary on the right side, lying in the fossa ovarica. The fallopian tube on the right side appeared about average size and of normal consistency. These two corpi joined at a common cervix, the latter being about 2.5 centimeters long. The left tube and ovary were removed, and the right tube was crushed and ligated. The patient had an uneventful recovery, and has had no return of her pelvic complaints. Diagnosis: Bicornate uterus and ruptured left ectopic tubal gestation.

COMMENT

Our first case represents an easy mistake to make. Where there is a suggestive history of gonorrhea followed by menorrhagia, and in a pelvic examination a mass is felt in one adnexal region, one is prone to jump to the easier and more common diagnosis of a tubo-ovarian pathologic condition. However, it is of interest to note that this patient had had three normal pregnancies with spontaneous deliveries at term. The course of the second case is a fairly common one in such anomalies. Ectopic pregnancy, with subsequent perforation and hemorrhage, has been reported over forty times in the 246 cases we have reviewed.

SUMMARY

Two cases of bicornate uteri verified by laparotomy in which pregnancies and spontaneous deliveries have occurred. In the first case a spontaneous abortion had occurred, and in the second an ectopic tubal gestation had ruptured.

The literature has been briefly reviewed and 246 cases have been noted since 1922.

Wassermann Fastness.—The term "Wassermann fastness" has become popular because it apparently is an easy means of explaining to a patient why the blood test remains positive, at the same time being consoling to the physician. This is an unfortunate situation, because a Wassermann fastness is not a diagnosis, but merely an accumulation of serologic reports.

The significant point about Wassermann fastness is that it may occur in any manifestation of syphilis, and it may have much significance or it may be of no concern at all. For example, Wassermann fastness in a patient with early syphilis who has been well treated suggests that there is an active focus of syphilis somewhere, in either the nervous or the cardiovascular system, and that effort should be made to demonstrate it and treat it accordingly. Likewise, a persistently positive Wassermann reaction in association with a positive spinal fluid is indicative of a resistant type of infection in the nervous system. On the other hand, if a diagnosis of latency is warranted, and is confirmed by repeated examinations during the prolonged treatment course, may have no significance. The positive test does not necessarily mean that the syphilis is active or that the patient is infectious.—Queries, *Journal of the American Medical Association.*

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

DEAFNESS—A SOCIAL, ECONOMIC, AND MEDICAL PROBLEM

I. DIAGNOSIS

ISAAC H. JONES, M.D. (1930 Wilshire Boulevard, Los Angeles), and VERN O. KNUDSEN, Ph.D. (Department of Physics, University of California at Los Angeles).—We have been requested to discuss the problem of diagnosis. It is now possible to make a precise diagnosis of deafness. The instruments and methods are available—and yet very few use them. It is freely admitted that a careful study of a hard-of-hearing patient should include the vestibular tests and audiometric tests in a sound-proof booth. Yet there are many otolaryngologists who do not even possess a turning-chair; some at last are securing audiometers; but sound-proof booths, without which any hearing test is woefully inadequate, are almost unknown.

As so often in the past, we will eventually be led into better ways of conducting our own work, and by the nonmedical people. In many branches of medicine we have only too often followed them and not led them. If these nonmedical people give better service—although in a dangerously limited field—the hard-of-hearing patients will naturally go to them. They pay their money and "get what they want"; but certainly not what is best for them—a real diagnosis.

All of us are so full of appreciation and praise for the achievements of medicine and surgery that we feel, with Shakespeare, "When I consider this man's art and that man's scope—myself almost despising." Occasionally it might be wise for us to look at the other side of the picture, and to consider only how stupid we doctors have been in the past and are today. In medicine, the achievement is real, but the stupidity is also real. To mention a few instances:

Focal Infection.—Hippocrates himself gave us a case report on focal infection: "The patient had joint trouble, which improved, following the freeing of the mouth of much disease." Dr. Benjamin Rush, in 1805, reported several cases; for example, a woman with arthritis in the hip. He suspected that this "was excited by the pain in her tooth, which was decayed." The removal of the tooth relieved the arthritis in the hip. He said, "I have been made happy by discovering that I have only added to the *observation of others,*" and he gave examples, such as Dr. Petit of France, who cured vertigo by tooth extraction. Doctor Rush gave this summary: "These facts, though but little attended to, should not surprise us: the most distressing general diseases are brought in by very inconsiderable inlets of morbid excitement into the system." Perhaps the mantle of focal infection falls on the shoulders of Alfred Mantle of England, who, in 1877, gave us the etiology of rheumatism considered from a bacterial point of view. Bacteriology was in its infancy; it was scorned by almost the entire medical profession in our country. The thesis of Doctor Mantle was not well received by the medical profession in England. In fact, when most of us went to medical school we were still in the dark. It was not until 1912 that Dr. Frank Billings created the beginning of interest in focal infection. Dr. George E. Shambaugh made his memorable report on tonsils as a focus of infection in 1913.

Scientific Massage. — Similarly, we neglected scientific massage. If we had regarded ourselves as patients, we would have paid more attention to the comforts that come from all measures—from the hot-water bag up; and so, due to our neglect, there developed and flourished the osteopath, the chiropractor, and the host of drugless healers.

Neuropsychiatry.—Nowadays all of us realize that fully 50 per cent of our work is really neuropsychiatry, regardless of our specialty; but we did not learn this soon enough. So again, as a direct result of our neglect, the public has to a great extent looked to the "mental healers" of every brand and variety, including our own interesting and remarkable actress who raises the dead, raises the devil, and—raises the money.

Other Factors.—One of the writers, when a boy, always hoped that the family would send for the homeopath instead of the "allopath." He learned that, after taking the few little sugar pills with next to nothing on them, he would get well quicker than from the strenuous medication of the "regular" doctor.

Not very long ago a doctor would decide, "I think I will be an eye specialist." He did not know physiologic optics. Nonmedical people, not in the least trained in the diagnosis of eye conditions, did understand physiologic optics. Hence the optometrist, who has the good will of a great number of the general public. How can we expect the general public to realize the danger of having an "eye study," limited simply to refraction?

True to form, we are again being led by nonmedical people in the careful measurements of hearing defects. The writers warned, many years ago, that there would soon be a new lay technician, the "audiometrist," analogous to the optometrist, unless otolaryngologists made precision measurements of the ears of their patients. The makers of good hearing aids are earnest and sincere; they realize that most otolaryngologists are not prepared to make precise measurements. So the laity now leads and we, as usual, will eventually follow. The ophthalmologist of the present day can prescribe eyeglasses as well as, or better than the optometrist.

But at this moment the "audiometrist" is the one who has instruments of precision which few otolaryngologists have. Recently, an internist told me that he went to see a woman who complained of abdominal distress. He noticed that she wore a hearing aid which had cost her well over $100. He glanced at her ear and found impacted cerumen, bilateral, which had been present for many years. When he washed this out, the patient had excellent hearing; and now her hearing aid is for sale. Surely, the otolaryngologist, like the ophthalmologist, should make his own precision measurements as well as study his patient from every other angle.

Examination Methods.—Besides the vestibular tests and the use of an audiometer in the sound-proof booth, there is another test which, for the past fifteen years, we have found of value—a study of the middle-ear mechanism by an oscillator with an electric otoscope. To "see the ear hear" is not merely an attractive thought. To a great extent it is perfectly possible for us to accomplish this in clinical practice. Naturally, we cannot observe the motion of the drum membrane when exposed to sound waves. The motion is too tiny and too rapid. The ear is wonderfully sensitive. At a frequency of 1,000 cycles, a barely audible sound is heard when there is one-billionth part of atmospheric pressure in the auditory canal. At this threshold of hearing, the drum membrane moves one-billionth of an inch. For lower frequencies the excursion is somewhat larger. For an ordinary sound, such as the voice, or the average noise in the office, the drum membrane moves one-millionth of an inch, in response to one-millionth of pressure in the ear canal. Such movements we are not able to see. Again, we cannot see the drum membrane move because it moves too rapidly. The eye has detectors for only one octave—from red to violet; double the frequencies for red are sensed as violet. In the ear we have ten octaves, from twenty to twenty thousand. We cannot see such rapid movements. "How, then, can we see the ear hear?" We can at least observe the motion of the drum membrane and hammer, and to this extent we can know exactly how well this portion of the ear "can hear." An oscillator with the electric otoscope causes an alternate rarefaction and condensation. We can cause the drum membrane to move about one-hundredth of an inch; and such excursions are plainly visible. As to frequency, we can cause the membrane to move three, four, five, or any number of times per second. In this sense, we are then able to "see the ear hear." An excellent method to determine stapes fixation is as follows: If the turning and caloric tests, and the audiometric tests in the sound-proof booth, reveal a normal internal ear and eighth nerve, and the deafness is proved to be due to a conductive defect, and the oscillator with the electric otoscope shows normal texture, and normal mobility of the drum membrane and hammer-handle, then we can conclude that there is only one diagnosis, one definite lesion—stapes fixation.

All of us have often wondered why ophthalmology has always led otology in precision of diagnosis. The reason is that instruments have been available for the study of physiologic optics. Physiologic acoustics had to wait for the advent of the *vacuum tube*. The older tests of hearing which we have used in the past have been based on valid principles; but they have been limited in accuracy and scope, not only in studies of the frequency range, but particularly for the purpose of prescribing hearing aids.

Again, the eye has a great advantage: we are able to look into it. As we cannot look into the ear, the problem is to determine the condition of those parts that we cannot actually see. In the past twenty-five years we have come to a better knowledge of the condition of these hidden structures. Curiously, this first came, not in auditory but in vestibular studies. We then attained a method of testing the ear by observing objective responses to ear stimulation. The turning and caloric tests enabled us to secure definite information. The vestibular tests give us objective evidence of the condition of the internal ear, free from the fallacies introduced by the patient's subjective feelings or ideas.

The next step was to put the auditory tests on a basis comparable to that of the vestibular tests. This became possible about 1915, by the discoveries of the vacuum tube and other modern electro-acoustic devices which are used so widely in telephony and radio communication. These discoveries brought in a new era for the diagnosis of hearing defects. The developments during the past twenty years have advanced audiometry to such an extent that it has now attained a dignity comparable to that attained in precision measurements of the eye.

To obtain a knowledge of the condition of the unseen parts of the ear, we needed, so to speak, an "ophthalmoscope-ophthalmometer — retinoscope" for the ear. We are now able to secure such information through the vestibular tests, and through the use of an audiometer in a sound-proof booth. During the early period of the development of audiometry about fourteen years ago, the writers, among others, drew up a list of requirements which they regarded as ideal for an audiometer. At present the American Standards Association and the American Medical Association are preparing, and are about to publish, definite standards for audiometers. This will be of service to the otolaryngologist in his selection of an audiometer.

In making hearing tests with audiometers, the hearing acuity should be determined at different frequencies, both by air conduction and by bone conduction, and the results plotted on a suitable chart. The patient also listens to the amplified voice of the examiner and states whether the voice seems distinct or confused. This is done both by air conduction and by bone conduction; the information gained is not only useful in diagnosis, but is particularly helpful in determining whether the patient hears well enough to purchase a hearing aid of either a bone conduction or an air conduction type.

Although the audiometer performs an indispensable service in making a correct diagnosis of impaired hearing, and reveals how much of an impairment is of a conductive and how much of a

perceptive nature, its greatest value probably will result from its usefulness in the prescribing of hearing aids.

Studies in the use of high quality amplification and of selective amplification are revealing not only the imperfections in existing aids of the portable type, but also the nature of the improvements which are needed in the ideal hearing aid. Recent tests made by our associates, Norman A. Watson and Ludwig Sepmeyer, have shown that persons with as little as 50 per cent of normal hearing can hear well by amplifying all frequencies up to 8,000 cycles. Hearing tests conducted by means of such an amplifier show that that those who now experience difficulty in hearing with the usual portable type of aid can hear very well if the proper amount and kind of amplification are provided. It is possible to build such high quality hearing aids which will do this satisfactorily; but they are heavy, bulky, and not portable.

A great deal of attention has been given to the problem of hearing by selective amplification during the past ten years. Such experience as the writers have had with selective amplification has revealed that we are dealing with a problem of cerebration, and not merely with the physical problem of amplifying each frequency by an amount equal to the hearing loss at each frequency. This probably explains some of the statements patients have made, namely, that they hear as well with uniform amplification as they do with selective amplification. It is probable that continued use of the most appropriate type of selective amplification would bring about the cerebral adaptations required for normal auditory perceptions. Certain patients do hear better by selective amplification when they first try it.

We should not expect too much from selective amplification. The ear is so constituted that it can tolerate a large amount of distortion and yet understand speech very well. The amount of distortion introduced by the usual type of portable hearing aid is comparable with the distortion introduced by a hearing loss which is greater for some frequencies than for other frequencies. Such attempts as have been made by some manufacturers of hearing aids to control selective amplification by using different types of diaphragms in the microphones, or different types of electro-mechanical amplifiers, do not produce sufficiently large differences in the amplification to meet the requirements.

It is apparent that much remains to be done in perfecting hearing aids which will meet the requirements for each individual. Thus, it is certainly a mistake for a person who has good hearing for frequencies below 2000 cycles, and greatly impaired hearing for frequencies about 2000 cycles, to use a hearing aid which amplifies only those frequencies below 2000 cycles. Yet, this is what happens in many instances. Certain persons have nearly normal hearing for frequencies below 2000 cycles, and when such persons use the available types of portable hearing aid, they suffer from the excessive loudness. The hearing aid fails to amplify the higher frequencies and, in addition, the overloud low frequencies actually mask the higher frequencies.

Selective amplification has promising possibilities for future developments in hearing aids. It is more than a theoretical ideal; and it is probable that with future improvements and with continued use by patients, selective amplification for each individual will be provided in the routine prescribing and constructing of hearing aids.

Summary.—Early diagnosis by precision measurements will make possible the prevention of deafness in millions of people in the future. For those already hard of hearing from fixed lesions, the prescribing of hearing aids is the highest service that the otolaryngologist can render. But the public will not know this and will not come to us, so long as we remain unprepared to meet their need.

* * *

II. TREATMENT

Harold A. Fletcher, M.D. (490 Post Street, San Francisco).—The various forms and types of deafness, their causes, their diagnosis, and the resultant impairment of hearing have all been discussed in previous articles. We will now consider briefly the subject of treatment.

Treatment must necessarily and obviously be based on the diagnosis. The discovery of impaired hearing must naturally precede the diagnosis. Too much weight cannot be placed on these two factors. We are only beginning to realize how early small impairments of hearing begin to show, and that for many years the process goes on before the gross stages are noticeable. Discovered and diagnosed in these early stages a great deal can be done to stop the process and prevent disability. All pediatricians and general physicians should routinely check children's hearing; and if any suspicion of a defect is found, have careful, repeated hearing tests made, audiometric tests if possible, or simpler tests if audiometer tests are not available. Proper corrective procedures, both local and general, often simply carried out in the routine medical care which all patients deserve from their family doctor, will prevent many cases of disabling impairments of hearing in later life. If postponed until gross defects are present, it has become too late to correct. Certain impairments come quickly as the results of acute intoxications in the acute fevers, etc. These sometimes are unavoidable, leave their damage as a permanent impairment, and pass on. There is nothing to be done in the treatment of these. But a very large percentage of cases are progressive types, starting very early in life, and can only be picked up and diagnosed by observation and study over a period of years, and corrected during this time by the careful and considerate coöperation between the pediatrician or family physician, the otologist, and the parents. To allow a child to gradually become blind while under his care and not do anything about it would make any physician's conscience hurt him, and the time is nearly at hand when the deafened young adult can ask his old family doctor and friend, "Why did you let me get this way?"

The diagnosis must tell us certain things. Are we dealing with a conductive type due to faults in the canal, ear drum, middle ear and eustachian tube and small bones of the middle ear, these structures which conduct the sound waves to the inner ear physically? Or are we dealing with a perceptive type of deafness, that due to a fault in the inner ear, cochlea or auditory nerve, which is the perceiving apparatus? Is it an old process that is stationary, or is it a progressing process still going on? What damage has been done, what structures have been damaged, what is causing it?

Treatment must aim at removal of the cause, arrest of the process, and prevention of further impairment and, where possible, restoration of lost function.

Acute Inflammations.—The acute inflammatory conditions are so well known that only a word is necessary. Paracentesis in abscessed ears is always imperative. There is no longer any excuse for a physician to wait for a drum to burst, with its lacerating effect and its greater danger for permanent impairment of hearing, even though he may still feel (even if erroneously) that allowing an ear to rupture itself will not make mastoid involvement more probable. Important is to carry the case through to completion, seeing that the middle-ear discharge ceases, the drum heals, and the hearing returns to normal. As soon as the ear is dry, mild inflations through the eustachian tube are indicated to restore function, prevent adhesions, and help resolution of small elements of retained secretions.

There are many cases of acute serous catarrh with a thin serous exudate filling the middle ear following acute infections, etc., which are overlooked. These can usually readily be cleared up by a few inflations by Pollitzer's method or catheterization of the eustachian tube or, at most, a small paracentesis followed by inflation. Allowed to remain undiagnosed, the serous fluid becomes thicker and later tends to form adhesions. It may indeed remain harmless for months awaiting proper treatment.

Chronic Middle Ear Catarrh.—The more chronic types of middle ear or conductive types of impaired hearing must be discovered as mentioned previously (hearing tests and observations of the drum membrane). Pathology in the nose and throat is of greatest importance. Removel of adenoids alone in infants, adenoids and tonsils after two years or more, careful treatment and care to shorten and prevent attacks of head colds, sinus infection, allergic and other conditions affecting the upper respiratory mucous membranes and leading to congestion and obstruction of the eustachian tubes—all of these conditions must receive consideration. Mild inflations of the ears are indicated at times after these processes are cleared up, but carefully controlled with hearing tests and observation of the drums before and after treatment. These treatments should never be overdone, and are only to help restore proper ventilation and function of the middle ear following attacks where there has been obstruction and congestion of the tubes, and is done only to correct the immediate results more rapidly and efficiently than would occur in the normal acts of swallowing and yawning, etc.

The most important form of conductive deafness is the more chronic progressing insidious form which, although influenced and made worse by the head colds, nose infections, adenoids, etc., taken up in the last paragraph, are probably not initiated by them. These so-called chronic adhesive processes of the middle ear may start from birth or even before, or any time during early life, and go on unnoticed until definite gross defects in hearing are noted. Routine hearing tests and observations of the drum only will pick these cases up. Whether Whitmaack is correct in his theory that entrance of meconium, regurgitated food, etc., at birth and shortly after initiates this process is debatable; more probable are metabolic factors. However, the pathology as he describes it and the hyperplastic process with its sclerosis and adhesive effects do exist in fact. This type forms one of the largest classes of deafness, can be diagnosed in childhood, becomes apparent in young adults, and very little can be done for it after that. Diagnosis in childhood and discovery of the causes in the individual case is the future treatment of these cases. The correction of nose and throat conditions is important, but after that the careful study of the child's hygienic, dietary, and metabolic life is of greatest importance. A real earnest endeavor to correct and build up the individual faults, particularly along dietary and vitamin and glandular lines, will probably arrest and prevent many of these incipient cases.

Treatment of the results of chronic adhesive processes may be indicated, and in some cases give excellent and lasting results, while some cases do not respond at all or are even made worse, and some patients can be temporarily improved as to hearing, tinnitus, etc., and made to hear more for a period of years. After the nose and throat have been put in healthy condition, inflation of the middle ears may be successful in improving the hearing. This may be done by catheter or by mild inflations with careful checking of results as to hearing and appearance of the drum membrane. Some cases do not show improvement until several treatments have been made, but under no condition should such treatments be persisted in if the hearing shows a decrease following several treatments. The use of various vapors, chloroform, iodin vapor, benzedrine, etc., may be of use through catheterization directly into the middle ear. Passive gentle massage of the ear drums by means of pneumatic massage through the external canals may also be tried. Diathermy over the mastoid, or by way of the external canals, may help some cases. Occasionally x-ray treatment has helped. All of these treatments probably act in improving the circulation of the middle ear, helping to absorb some of the by-products of the process. Inflations and massage probably help partly in the physical improvement and temporary restoration of impaired motility and function. Tinnitus and other abberant sounds in these cases are also often helped by such treatments. The main thing to remember is that no treatments should be carried out over too long a

period, and results should be carefully watched. Intermittent short courses or single treatments will often help certain cases over long periods of time.

One form of conductive deafness is an entity by itself. This is otosclerosis. This is much more common than often realized. Inflation and massage, in fact almost any positive local treatment only aggravates this condition. The cause is not known, but careful general care, corrective metabolic and physiological guidance, particularly throughout a woman's menstrual life, is of great importance. A woman with otosclerosis should be frankly told that pregnancies will probably cause marked increase in deafness, and that her children may be afflicted.

Inner Ear Impairments. — The treatment of inner ear or cochlear impairments depends on early recognition of the causes, particularly such as focal infections, toxemias due to infections, syphilis, typhoid, malaria, mumps, etc.; due to drugs, quinin, alcohol, nicotin, salycilates, including aspirin, which definitely can produce inner ear degeneration; the various metabolic disorders; nephritis, arteriosclerosis; and their by-products, and exposure to noise and sound trauma. Various and many factors may be found in the individual case and these causes eliminated. The commonly used induction of labor by use of large doses of quinin is to be severely condemned—*obstetricians, please note!* It has been definitely proved that cochlear degeneration in new-born babies can be caused by this obstetrically needless drug, used to induce labor.

In inner ear impairments, as in the forms discussed above, early discovery of the progressing nerve deafness, made by hearing tests often repeated, is the hope for proper corrective treatment. Active local treatment of degenerative processes in the cochlea or nerve is unavailing and often harmful. Tinnitus may occasionally be helped by one or two inflations of the middle ear with vapors of chloroform or glacial acetic ether, or diathermy, etc., but in general local treatment is contraindicated and may be harmful. Treatment of the cause before too much damage has been done, rather than treatment of the result, is the important thing.

Mixed Forms.—Treatment of the mixed forms more or less follow the above, a careful balance check between the two forms being kept in mind. The middle ear or conductive part of a mixed form can sometimes be improved, although the cochlear damage may not be influenced.

In all forms where the prognosis for gradual impairment is bad, the study of lip reading should be begun early and conscientiously so that this aid may be mastered while the patient still hears the spoken words well.

Hearing Aids.—The improvement in mechanical electrical hearing aids has progressed rapidly in the last few years. Thousands of people who could not get along before can now hear readily with one of these. After a certain degree of deafness has occurred these aids are to be considered. No exact percentage loss of hearing can be said to indicate when one should be tried. Generally speaking, when a hearing loss of twenty decibels has occurred, a hearing device may be considered. Many people, however, have a greater loss and are far more happy and efficient without the aid of an electrical hearing device. The individual's life, social and business, his temperament and intelligence, all are factors. Certain facts must be borne in mind. When one hears through an electrical aid he hears through a telephone receiver, and direction of sound, perspective of sound as it were, is lost. All sounds are amplified to a certain degree and are brought in through the single hearing piece. Thus, when several people are speaking, all voices come in through a one-party line and the same effect of a babble of voices and noise occurs. It is necessary to understand this annoying factor. In individual conversations, small meetings, lectures, etc., people who previously had great difficulty in holding conversation carried on by loud shouting can now hear well. Another important factor to be remembered is that people who have poor hearing over a long period have lost the sensation of many sounds in conversations, and with a hearing device they suddenly hear these missed sounds again and have to learn to interpret them again. In other words, such a person has to learn to hear again, and education and practice are necessary before they get the most use out of the device. Some patients can understand very little when first using a device, as they hear so much that they had been missing; but often, with some training, they are able to hear much more with than without the instrument.

One of the greatest criticisms of the electrical hearing device is the sales methods that have been pursued by the various sales agencies. There is a tremendous capital investment in the manufacture and distribution of these instruments. Wonderfully fine research has been done by these companies in developing them. This, unfortunately, has been almost universally reflected in the pressure sales campaigns to market these instruments. Most instruments are sold by salesmen who are paid only commissions, and who often are discharged as soon as they have exhausted their list of prospects. Thousands of unfortunate patients have had instruments forced on them by unscrupulous salesmen often by trick methods, only to find that for them that particular instrument was worthless. Little concern is shown by the agent once the instrument is paid for. Unfortunately, also, there has been a shameful lack of ethics on the part of a great many physicians and otologists in accepting or even demanding a commission from the agent.

In Conclusion. — Finally, one must remember that in the treatment of these advanced cases of impaired hearing there is a humanitarian and a psychological side that is very important. These patients need encouragement and guidance. They should not be turned aside or dropped with the statement that nothing can be done. They should be urged to take up lip reading, to try out different instruments, and be guided and protected against enthusiastic if not unscrupulous salesmen and quacks, until they get a machine worth while for them. They should, with patience and clearness and explanation, be made to understand that treatment will not help, and so be kept out of the hands of quacks and charlatans. A kindly, sympathetic,

and understanding treatment of these afflicted people is just as much a duty of the otologist and physician, as the treatment of any psychological by-products of any of the common, general, and nervous diseases.

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III. RELATION TO SOCIAL WELFARE

Francis L. Rogers, M.D. (360 Junipero Avenue, Long Beach).—The otologist who today views deafness as a strictly medical problem is fifty years behind his time. One-twelfth of our entire population has impairment of hearing. This startling fact brings into the fore a public health problem of immediate and momentous importance. Furthermore, despite great advances in the diagnosis and treatment of ear diseases, surveys show that deafness is increasing. An eminent English scientist declares that, unless better means of prevention and cure are found, in three hundred years there will be no persons living who have perfect hearing.

Dr. Edwin P. Fowler, eminent research otologist, declares that 95 per cent of all cases of deafness were, at some stage, preventable or curable. The lay public may be unaware of the tragic situation above stated, but surely the otologist knows the truth. And if he is the type who says to a patient, "You are incurably deaf. I can do no more for you," he not only shows a callous disregard for the feelings of the person thus released, without hope, but admits his lack of understanding of the social and economic significance of such washing his hands of responsibility.

Who better than the otologist, keen to uphold the traditions of "the noblest profession on earth," should be able and willing to grasp the problem from the educational, social, and scientific angles, and to give his whole-hearted approval and intelligent leadership to efforts toward solution? The magnitude of the undertaking should but challenge him. And the spirit of coöperation on the part of the public should hearten his hopes of ultimate victory.

While the otologist is, and must always remain, the best and safest guide to the deafened in their quest for relief from pain and disease, he must guide them as well in search of social and economic rehabilitation. He was a *man* before he became a *specialist.*

He cannot treat his patient's ears without first reckoning with his whole body, with its physical and mental bearings upon his hearing problem. Here, to the otologist, his fundamental training in general medicine is of inestimable value. It aids him in determining the value of general symptoms, and of those localized in the ear, nose, and throat. His special and general diagnosis are both vital to the prognosis and treatment of any case he takes.

The fortunate ones benefit by care taken in time. Tragic are the cases where deafness has become incurable, which need not and should not have become so—none more tragic than the young person when it is first borne in upon him that his loss of hearing is permanent; that his whole life program must be changed; that his social and economic status must be readjusted.

It has been said that deafness is a mountain some cannot climb. Few learn to accept the handicap gracefully. Practically all to whom deafness comes go through *hell*—physically, mentally and, in most instances, economically. Here is where the wise, honest, and understanding otologist has his great opportunity to render a fine social service. He can open the door of hope.

The art of reading lips enables deafened persons to hear with the eyes. In school a young child can learn to read lips well in six months. Adults are usually less apt, but they acquire this art, and it brings them back into their world, from which deafness had cruelly shut them out.

It was a socially minded otologist, Dr. Wendell C. Phillips of New York, who, in 1909, formed from among his patients the first group for the study of lip reading. It became the first League for the Hard of Hearing in this country. Similar groups in other cities adopted the plan. In 1919, nine of the more than twenty clubs thus formed were federated into what is now called the American Society of the Hard of Hearing. Thousands of adults in 160 affiliated leagues in most of the states are thus joined together for mutual benefits. The federation is a powerful factor in the social and economic rehabilitation of all who have impairment of their hearing.

The development of electrically energized hearing aids has revolutionized methods of benefiting the hard of hearing. Improvements are perfecting these, and their increasing use is reducing their cost, which is a great blessing to users.

The outstanding diagnostic advance was the perfection of the audiometer, by use of which the hearing of forty children can be tested in half that many minutes. In California, which has thirty-five leagues, there are thirty multiple (4a) audiometers in use, owned by schools, health departments, leagues, and other civic groups. Outside of the two largest cities, more than thirty thousand pupils were given hearing tests in 1936. Communities are realizing that every child should have an audiometric test annually. It is a social and economic necessity.

In 1936 the first law requiring the testing of the sight and hearing of every school child was passed in New York. Otologists, leagues, and public-spirited citizens accomplished this. California leagues are sponsoring such a measure, but with small prospect of getting it passed, in effective form, now. An obsolete statute, generally ignored, is a part of our school law. It makes no distinction between hard-of-hearing and deaf children. It demands that such cases be reported to the principal of the School for the Deaf!

Ten states have, in 1936, laws relating to the hard of hearing. California will not long be behind in meeting an acute need, for her reputation is at stake. Hard work and a campaign of education will bring about the needed legislation in time.

Looking back to the small beginnings of the movement to combat the increase of deafness, and to make rehabilitation possible to persons with hearing deficiencies, we have cause to take heart.

The public is awake to the fact that the problem belongs to the schools and to the departments of public health in every community. Research into the causes of deafness is demanded. Detection of deafness at the earliest possible stage is the duty of parents, through their family physicians, through health centers, and later through the health agencies in the schools. Parents are learning how to train and to help children with impaired hearing. This keeps up morale, and prevents repeating grades—a costly performance, from every point of view.

Eighty per cent of the deafened pupils in our public schools are declared to be needlessly so. Only 20 per cent of the cases were such as could not have been cured if taken in time. Many pupils ordinarily classed as stupid or mentally deficient are found, by testing, to be hard of hearing, not "dumb."

The self-help, and help and encouragement to the members of the League, is one of the most remarkable results yet achieved. Normal social activities among themselves and participation in community projects for the benefit of the needy prepares the League members to take their places outside in normal ways. Ability to read lips opens the way into circles from which they voluntarily retired. Lip-reading classes grow into leagues.

Every otologist should belong to a League of the Hard of Hearing for his own good and for the good he can do the members already there.

At the annual meeting of the California Medical Association in 1934, the Eye and Ear Section appointed a committee of five to make a survey of the problem of deafness in the State. The report, submitted a year later, aroused much interest. It was continued, and its membership increased to twenty-five. These otologists found their own growing interest matched by the organizations of laymen—Parent-Teacher Associations, Boards of Education, Health Departments, civic and service clubs, and Leagues of the Hard of Hearing—in large and small communities. So the Committee reported to the Medical Association in 1936. The addition of new members places fifty otologists on the list of leaders in a drive, whose objective is to organize every county in the State, to the end that California citizens shall become "hearing conscious." Hundreds of nonmedical workers are helping in this movement. Their slogan: "End Deafness in California!"

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*Counting the Sheep.**—Many people who cannot sleep make use of various mental devices to pass away the time or to suggest themselves to sleep. Indeed many times they work harder in trying to go to sleep than they work during the day in trying to make a living. Some of these helps are real helps while others are all wrong.

Saying the alphabet backward, counting to a million, enumerating the well-known sheep as they gambol o'er the hedge, and other similar procedures, are tiresome and defeat the purpose of going to bed. If you do not sleep you should by all means try to rest, for you will need the rest next day. Why not recall pleasant memories and have a good time with oneself? Of course, this applies only to those persons who have so lived that they may reasonably consider themselves a good companion for themselves. To have some familiar experience which is lived over and over in the wee small hours when Morpheus is out on a spree is to have what is known as a "nestling thought." Cultivate one. It really is a lot of fun and can be as romantic as anyone may wish.

Many try to suggest themselves to sleep and, as a rule, succeed only in suggesting themselves wide awake. Their dialogue with themselves goes something like this:

"I'm going to go to sleep. I'm going to go to sleep. I'm going to go to sleep."

A little voice says: "You're not. You're not . You're not."

"I'm going to go to sleep. I'm going to go to sleep."

"You're kidding yourself. You're just like you always were and you won't go to sleep for two hours."

Etc., etc., etc., for a couple of hours, tiresome nerve-racking hours.

Lie still and rest, think about some pleasant experience and, above all, think of something else than sleep, insomnia, and related subjects. Every time that one flounces over on the other side the activity wakes him that much wider awake—not to mention its effect upon one's bedfellow, if he has one.

Form a habit of being moderately fatigued and sleepy before going to bed, and then go to bed to sleep.

* By Thurman B. Rice, M.D., Professor of Bacteriology and Public Health, Indiana University School of Medicine.

Important Amino-Acids in Wheat Flours.—White patent flour is about as good a source of important amino-acids that the human body has to have for life and growth, as whole-wheat flour, according to investigations by Dr. Frank A. Csonka of the Bureau of Chemistry and Soils, United States Department of Agriculture.

Two important amino-acids, cystine and tryptophane, were higher in patent flour, while tryosine and the dibasic amino-acids were higher in whole-wheat flour. Naturally, there are other factors in addition to the amino-acids, such as mineral content, vitamins, roughage, and keeping quality, all of which are important and must be considered in estimating the relative value of patent and whole-wheat flour. But Doctor Csonka was not concerned with these. He was only trying to find out how white patent flour compares with whole-wheat flour in the "important" amino-acids.

Milling both patent and whole-wheat flour from the same sample of wheat shows that the total quantity of important amino-acids in the protein of patent flour differs only slightly from the total quantity in whole-wheat flour. Proteins are made up of amino-acids which are necessary in building up the tissues of the body. Something like nine of the twenty-two or more different kinds of amino-acids are essential to life and growth. Certain of these amino-acids required by the body in building proteins and hormones have to be supplied through the diet, because the body cannot produce them.

The customary method of estimating the protein content of wheat flour is to multiply the nitrogen percentage in the flour by 5.7. This shows the difference between low and high protein flour, but gives no information as to the quality or food value of the protein in the flour. This is important because the food value of a protein depends upon whether or not it contains enough of these "indispensable" amino-acids.

Results of the investigation show that the amino-acid content of wheat may differ a great deal in different varieties. Hard wheat is higher in certain of the important amino-acids than soft wheat. And protein quality in wheat is better in varieties high in protein.

Of the three major parts of a grain of wheat—bran, germ, and endosperm—bran and germ are higher than endosperm in protein, but the endosperm from which patent flour is made constitutes such a large percentage of the wheat grain that the total amount of amino-acids in patent flour is practically the same as the total amount found in whole-wheat flour.

An intercurrent attack of measles is particularly dangerous for young children who have an active tuberculosis. During an epidemic of measles all children with a positive tuberculin reaction should be protected, regardless of whether the process is active or not.

Protection is especially important in the case of small children; in case of an active process, protection should be complete.

CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section on pages 2, 4 and 6.

CALIFORNIA MEDICAL ASSOCIATION

HOWARD MORROW.....President
WILLIAM W. ROBLEE.....President-Elect
LOWELL S. GOIN.....Speaker
MORTON R. GIBBONS.....Council Chairman
FREDERICK C. WARNSHUIS.....Secretary-Treasurer

THIS MONTH'S TOPICS *

ASSOCIATION ACTIVITIES

1. *1937 American Medical Association Meeting.*
2. *Atlantic City Observations.*
3. *What Do You Recommend?*
4. *Assembly Bill 1491.*
5. *The Nation's President Replies.*
6. *Legal Don'ts.*

DEPARTMENT OF PUBLIC RELATIONS

1. *Public Health Education.*
2. *Study of Alcoholism.*

ASSOCIATION ACTIVITIES

1937 AMERICAN MEDICAL ASSOCIATION MEETING

A big meeting, excellent program, exceptional exhibits, commercial and scientific; a House of Delegates confronted with perplexing problems; California fellows in attendance; Irvin Abell of Kentucky, President-Elect; Junius B. Harris of California, Vice-President; San Francisco selected for the 1938 meeting place during June 13 to 17—such is the general summarization of the Atlantic City meeting of the American Medical Association.

But what is the more significant summary after a week of postmeeting reflection, a conversation today with Doctor West, and a Sunday morning of conjecture as this is being written in Chicago a few hours before commencing the return trip:

The *Journal of the American Medical Association* will disclose in the official minutes the several resolutions introduced and the reports of reference committees on more or less routine matters. Characteristically, the House of Delegates, after four years of consideration, declared a policy on birth control. Characteristically, because that legislative body has ever been disinclined to precipitous action and is most deliberative in its declarations. This observation in passing.

The most important question confronting the delegates was social medicine. This problem was raised by the New York State society delegation's resolution. Space will not permit relating the many factors and extra-professional urges that inspired, or rather schemed, its drafting and presentation. It was stated that the American Medical Association Board of Trustees desired to report on this resolution, and it was so referred. The Trustees reported back that the factors and policies involved were so important that the delegates should record the action to be taken. The resolution was then referred to the Committee on Executive Session and, after a prolonged hearing, brought in a report that contained a substitute resolution of policy and position. (See official minutes.) This was unanimously adopted.

Word was received that Senator Lewis of Illinois desired to address the delegates on the question of federal legislation. A special session of the House of Delegates was called to hear the Senator. His statement has been published.

California's delegates were active and truly representative. In due time their official report will be imparted.

ATLANTIC CITY OBSERVATIONS

One hundred and sixty-eight California fellows registered, according to official daily bulletin.

California's seven delegates were in attendance at every session of the House of Delegates, including two extra executive sessions. Doctors Best and Dukes were members of reference committees.

San Francisco, 1938, June 13 to 17, is the place and date for the eighty-ninth annual session. Chinese pillows were given as souvenirs to every delegate by the San Francisco Convention Bureau and the San Francisco County Medical Society. A book of views of San Francisco, with a cover the facsimile of a telegram extending a cordial invitation to meet in San Francisco, was placed in the chair of every delegate at the last session.

Dr. Robert A. Peers nominated Dr. Junius B. Harris for vice-president. No opposition. Unanimously elected. Dr. E. J. Best extended the invitation to meet in San Francisco.

Heat, thunderstorms, rainstorms—such was the weather. In 1938, delegates and fellows will appreciate the June weather on the Pacific Coast.

The scientific exhibits were most complete, and constituted a real postgraduate course. California fellows should apply *early* for space in the 1938 exhibit.

Two resolutions introduced by California delegates were unanimously endorsed. (See official minutes.)

President-Elect Irvin Abell of Kentucky accepted an invitation to visit California in late October. He will speak at the Secretaries' Conference, and engagements will be made for him in Los Angeles and the San Francisco Bay area. Doctor Abell has a delightful personality and is most cultured as well as being a surgeon of national renown. His acceptance speech was the very finest ever rendered before the House of Delegates in twenty-five years.

Official delegates were present from the British Medical Association, Australia Medical Association, several South American countries, Canadian Medical Association, American Bar Association, and American Dental Association.

What constitutes hospital service was defined in a reference committee report and was approved. Hospital service as defined does not include radiology and laboratory service, which is the same contention as was affirmed by the California Medical Association in 1935 and 1936.

Approved hospitals must have medical staffs composed of members of county medical societies.

For further detailed official action, please refer to the official minutes as published in the *Journal of the American Medical Association.*

These comments were penciled in Chicago midst a humid, sweltering atmosphere, a few hours before boarding the train. On future occasions it is intended to make further comment upon the recorded transactions of this annual session.

*All articles listed under the caption, "This Month's Topics," have been written and sent to the Editor by the Association Secretary, Dr. Frederick C. Warnshuis.

WHAT DO YOU RECOMMEND?

In these days of unrest and change, individual and groups of medical men, with increasing frequency, ask: "Why isn't something done about this?" The answers are not borne of the moment or in a single mind. Those in position of office and trust have warned, have sought answers, have pleaded for unity of action for the past ten and twenty years in a very sincere and earnest endeavor to bring about concerted action and unity of purpose to ward off many of the now undesirable practices and conditions. These pleas vaporized in the wide heavens. Medical men evidenced no concern or interest as a whole until the past few months or years. Now, finding themselves in the very midst of conditions that seriously threaten their former relationships and comings and goings, the questions are numerous—"How did this come about?" "Why isn't something being done about it?" The first question can be answered readily and the indictment placed upon the doorstep of medical men. The second question does not lend itself to a solving answer because of a mass division of opinion and an unwillingness to subscribe support and give coöperative observance to movements designed to eliminate intolerable conditions and practices.

For future guidance, and in further endeavors to find answers and solutions, we are inviting *you,* fellow member, to send in your recommendations upon:

1. How can there be brought about a wider observance of the principles of ethics? (There is a fundamental need that such observance be universal if majority action is to be obtained.)

2. How can personal quests and ambitions be made to be subservient to the better interests and practices of the entire membership?

3. How can public good will be established for scientific medicine and its practitioners?

4. How can standards of practice and service be raised and reflected in every practitioner?

5. How can practitioners be caused to recognize the importance of preventive medicine, practice it and bring about the return of this branch of medicine from the public clinic to the physician's office?

6. How can industrial medicine and surgery be taken away from the control and dictation of insurance companies and corporations, and how to eliminate contract practice in this field of medicine?

7. How can we cause practitioners to realize their limitations and cause them to desist assuming care and treatment of cases which they are incompetent to treat?

8. How can guild loyalty and support be developed and applied?

These are questions that are of grave concern and interest to your officers, council, and standing committees. They seek and welcome your answers. May you be heard from.

ASSEMBLY BILL 1491

The following statement is taken from the Assembly Daily Journal of Friday, May 21, 1937:

Statement Relative to Assembly Bill No. 1491

By Mr. Welsh:

During the arguments on the floor when Assembly Bill No. 1283 was under consideration, I stated that, in my opinion, the sponsors of this bill, Assembly Bill No. 1491, were not acting in good faith, and that this bill would not be urged for passage.

I believe that statement was erroneous, and I am now of the opinion that the authors of Assembly Bill No. 1491, and its sponsors, were actuated by the highest motives and an honest and sincere desire to furnish to the people of the State an adequate low-priced health and medical service.

However, our knowledge, gained from the deliberation on both Assembly Bill No. 1283 and Assembly Bill No. 1491 have convinced the authors of Assembly Bill No. 1491, as well as me, that the enactment of any legislation upon this subject is not practical unless and until the matter has been thoroughly considered by all interested—particularly having in mind the administrative and technical problems involved.

We feel that the entire future of health insurance may be jeopardized by unfavorable conditions which may be unthinkingly imposed through hastily enacted and not fully considered, legislation.

Because the two bills which have been presented to this Assembly might react to the detriment of health and medical service insurance, although being intended to have the opposite result, I feel, and am joined in my sentiment by the authors of Assembly Bill No. 1491, that the best interests of the public will be served by deferring action upon this important subject until the administrative and technical features have received more adequate consideration.

May I say again that I have the greatest of faith in the sincerity of the sponsors of this bill and, as I hope was made clear by me previously, I have never questioned the sincerity of its authors.

RALPH LOUIS WELSH, *Assemblyman.*

THE NATION'S PRESIDENT REPLIES

CALIFORNIA MEDICAL ASSOCIATION

May 14, 1937.

Franklin Delano Roosevelt
President of the United States
Executive Offices
Washington, D. C.

Your Excellency:

The California Medical Association, representative of 83 per cent of the licensed, practicing physicians and surgeons in California, convening in its sixty-sixth annual session in Del Monte, California, on May 2 to 6, 1937, adopted the enclosed resolution.

By official action, I was directed to transmit the resolution to you with the respectful and earnest request that you accord it your sympathetic consideration and endorsement. Further, that you be earnestly requested, should occasion arise, to be guided by these expressions from our members who are deeply concerned with the health welfare of fellow men and who desire to preserve for them the high quality of American scientific medical care and service which can only be attained under medical supervision and leadership. By education, training and experience, doctors of medicine are the only capable individuals competent to direct and supervise medical care under federal and state control. Therefore, their services should never be mobilized under lay control and direction.

We sincerely trust you will recognize the basic and fundamental principles that are contained in the resolution and subscribe your support to conserve them for the best health interests of the peoples of this nation and the future of American medicine and its practitioners.

Respectfully submitted,

THE CALIFORNIA MEDICAL ASSOCIATION.
(Signed) Frederick C. Warnshuis, M. D.,
Secretary.

* * *

RESOLUTION

Adopted by the California Medical Association in annual session, May 2-6, 1937.

WHEREAS, The Board of Trustees of the American Medical Association has promulgated the following policy and principles:

"Recognizing that committees of the Senate and the House of Representatives of the United States Government and a special committee appointed by the President are at this time concerning themselves with the reorganization of government activities with a view to greater efficiency and economy, and recognizing also that the President, in his opening address to Congress, indicated that he would shortly present to the Congress recommendations for such reorganization of governmental activities in the executive branches, and recognizing, moreover, the great desirability that all activities of the Federal Government having to do with the promotion of health and the prevention of disease might with advantage be consolidated in a single department which would not, however, be subservient to any charitable, conservatory or other governmental interest. It has been repeatedly said that public health work is the first problem of the state. It is the opinion of the Board of Trustees that health activities of the Government, except those concerned with the military establishments, should not be subservient to any other department interests. The reorganization and consolidation of medical departments need not, under present circumstances, involve any expansion or extension of governmental health activities, but should serve actually to consolidate and thus to eliminate such duplications as exist. It is also the view of

the Board of Trustees that the supervision and direction of such medical or health department should be in the hands of a competently trained physician, experienced in executive administration"; and

WHEREAS, The medical profession, by reason of its members' medical education, training, and experience, is most competent to determine the medical needs and services that are essential for the conservation of the public's health welfare; therefore, be it

Resolved, That the California Medical Association endorse the policy and recommendations of the Board of Trustees of the American Medical Association as herein stated; and be it

Resolved, That the Secretary of the California Medical Association be hereby instructed to transmit this resolution to the President of the United States, to the members of the Senate and House of Representatives of Congress, and to the Board of Trustees of the American Medical Association; and be it

Resolved, That the Chairman of the Council and the Secretary of this Association address a communication to the senators and congressmen of California respectfully, urging them to support this policy and recommendation.

* * *

THE WHITE HOUSE
WASHINGTON

May 17, 1937.

My dear Doctor Warnshuis:

This will acknowledge the receipt of your letter of May 14 with the enclosed copy of resolution adopted by the California Medical Association, which will be brought to the President's attention. I know he will appreciate having the views of your Association.

Very sincerely yours,

(Signed) M. H. McINTYRE,
Assistant Secretary to the President.

LEGAL DON'TS

It is necessary to continuously remind members to be on their guard to avoid legal pitfalls. For that reason the following suggestions are advanced.

Robert Dineen writes that a doctor's encounter with law will not be unpleasant if he will keep three things in mind:

1. He is a member of a dignified and honorable profession.
2. Common honesty always pays dividends.
3. Common sense is a virtue.

Don't run down your brother physician.

Be careful what you write to your patients.

Be careful about placing the collection of overdue accounts in the hands of collection agencies.

Keep up to date.

To these there can be added:

1. Do not hesitate to call consultants in serious cases.
2. Keep accurate records and do not give copies of your records.
3. In accidental injuries do not neglect the taking of x-ray pictures. Keep these and retain radiologists' report.
4. Be guarded in your promises and prognosis. Don't be "gossipy."
5. On questions of law and rights be guided by the advice of legal counsel and subjugate your own opinions and ideas to those of a competent attorney.

A GOOD RESOLUTION

Let us firmly resolve that there shall be but one class of doctors—good doctors. And remember, you who neither hold an office in your State Association nor have an ambition to hold one, that those who are holding offices, subject to your own selection, do so with but one thought—to serve the medical profession of this state and nation, and through them, the people of this state and nation. There have been no great battles in the world's history where certain divisions of the Army did not have some weak and selfish elements which would have failed in the face of fire had it not been for the steadfastness of the faithful. One of the grandest words in any language is that word "faithful." True to a trust invested in you, and dependent upon you for execution.—Williamson, *Tennessee Medical Journal,* May, 1937.

C. M. A. DEPARTMENT OF PUBLIC RELATIONS†

PUBLIC HEALTH EDUCATION

Under instructions of our House of Delegates, California's delegates to the American Medical Association were instructed to introduce the following resolution at the Atlantic City session:

(a) Resolution Regarding Public Health Education and Educational Films

WHEREAS, The public today is seeking and demanding dependable health information and knowledge; and

WHEREAS, This demand is being partly met by self-seeking, non-authentic and non-scientific sources, namely, the advertisers and vendors of remedies, and self-constituted, inadequately educated cults and charlatans; and

WHEREAS, Misleading and false information is being transmitted to the public through the various avenues of publicity which constitute a very definite menace to the health welfare of the public of this nation and, therefore, demands the concerted action of organized medicine to aid and support the physician in fulfilling his duty to the public as expressed in Sections 1 and 3, Chapter IV of the Principles of Medical Ethics of the American Medical Association; and

WHEREAS, Methods and channels through which educational information is being imparted have materially changed in the past twenty-five years from the written page to the radio, and now to the moving picture with sound-effect; and

WHEREAS, Motion pictures bringing the story of medicine to the public have been used in a very limited way by the profession and by organized medicine; and

WHEREAS, The visual story of medicine in film lends itself to dramatization of great general interest and offers effectime means for desirable educational work in the public's behalf, and will create an appreciation of the science of medicine and of those who represent it; and

WHEREAS, Motion-picture films must be of understandable pictorial and dramatic quality that calls for the expenditure of money for scenarial writing or scripts and dialogue; and

WHEREAS, Such moneys cannot be expended by individual physicians or by component county medical units; and

WHEREAS, Motion-picture films of a character contemplated in this resolution should be used nationally to the benefit of the public; therefore, be it

Resolved, That the House of Delegates of the California Medical Association at Del Monte, California, in May, 1937, instruct its delegates to the House of Delegates of the American Medical Association meeting at Atlantic City, June 6 to 11, 1937, to introduce and to support a resolution calling upon the Board of Trustees of the American Medical Association to give immediate consideration to the production of educational films, with and without sound-tract, and that such films be made available for the various component state and country medical societies throughout the country for these educational purposes.

This is an excellent step in advance. The next step is to be taken by county societies in the arranging of a series of local public meetings. These should be sponsored primarily by the county society and publicly by some local organization—Auxiliary, Parent-Teacher Associations, or women's clubs.

County societies are requested to arrange for such meetings by the appointment of a committee charged with this responsibility. Plans should be made now to initiate these series early in the fall.

Study of Alcoholism

A grant of $44,000 by the WPA has launched a study of the causes and consequences of alcoholism at the Boston City Hospital. So reports the *New England Journal of Medicine.* A committee of five, with Dr. John A. Foley as chairman, will direct the study.

†The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. Charles A. Dukes of Oakland is the chairman, and Dr. F. C. Warnshuis is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. F. C. Warnshuis, Room 2004, Four Fifty Sutter Street, San Francisco.

Some interesting figures may be compiled, certain physiological results classified, pathological changes recorded and "sobering" treatment will be outlined. And that is about all that can be expected.

There is something more than the moral factor in this problem of alcoholism. Something more than the mental, social, economic and environment factors that produces the urge for individuals to indulge in excessive alcoholism. Who can tell or state the basic causes of this complex problem? National prohibition by legislation failed. What other means are at hand to curb or restrict this national, yes world-wide habit of alcoholic indulgence and over-indulgence? Answer, you moralists, you physiologists, you political leaders, and officials! Our inability to answer is admitted.

COMPONENT COUNTY MEDICAL SOCIETIES

SAN JOAQUIN COUNTY

The regular meeting of the San Joaquin County Medical Society was held at the Trocadero Club in Lodi on June 3.

A fine dinner was served. The application for membership of Dr. A. K. Merchant being favorably passed on by the Admissions Committee, and there being no objections from the floor, Doctor Merchant was declared a member. Applications for membership were received from the following: Doctors J. O. Eccleston, Wilfred I. Gotanda, S. W. Leiske, and E. D. Auppurger, and were referred to the Admissions Committee for action.

Dr. Dewey Powell gave a very short résumé of the meeting of the California Medical Association at Del Monte. Dr. C. A. Broaddus made a motion, seconded by Doctor Powell, that the Secretary be requested to write a letter to Assemblymen James Thorpe and Charles Weber and to Senator Bradford Crittenden and thank them for their coöperation during the recent meeting of the California Legislature.

The paper of the evening was given by Dr. S. P. Lucia, Assistant Professor of Medicine at the University of California. Doctor Lucia spoke on *Ancient Greek Physicians.* This was illustrated by slides, and was extremely instructive.

A standing vote of thanks was taken, thanking the Roma Winery for furnishing very delicious sparkling burgundy and champagne.

There being no further business to come before the Society, the meeting was adjourned at 10 p. m.

G. H. Rohrbacher, *Secretary.*

SANTA BARBARA COUNTY

The regular meeting of the Santa Barbara County Medical Society was held on Monday evening, June 14, at Bissell Auditorium, Cottage Hospital.

The speaker of the evening, Dr. Frank H. Krusen, Director of Physical Therapy at the Mayo Clinic, was introduced by Dr. John S. Hibben of Pasadena, Chairman of the Executive Committee of the Pacific Physical Therapy Association.

Doctor Krusen gave an extremely interesting and instructive talk upon *Fever Therapy,* stressing especially its use in gonococcus infection. Questions and discussion followed.

Doctors Robert Carter of Santa Barbara and Yoshitaka Nakano of Guadalupe were unanimously elected into membership.

No meetings will be held during July and August.

William H. Eaton, *Secretary.*

CHANGES IN MEMBERSHIP

New Members (28)

Alameda County.—Herbert C. Archibald, Ralph della Sala, David M. Grantham, Ronald M. Troup.

Fresno County.—W. L. Adams, Jr.

Los Angeles County.—Ladislaus Friedman, Louis J. Gogol, John F. Hull, Max I. Lomas, Sverre Oftedal, Gerhard D. Ruth, Emil Seletz, W. R. Senseman, Reginald H. Smart, George E. Tucker.

Marin County.—George C. Lowell.

San Bernardino County.—V. Giddings Slater.

San Diego County.—Roy K. Tanaka.

San Francisco County.—Walter Beckh, Philip P. Bill, Felix Cunha, Richard J. Wagner, Edwin E. Ziegler.

San Joaquin County.—A. K. Merchant.

Santa Clara County.—Kristian Johnsen.

Solano County.—George J. Budd.

Sonoma County.—Herbert W. Hyatt.

Tulare County.—Thorwald Johnson.

Transferred (5)

William H. Blackman, from Imperial County to Riverside County.

Lawrence R. Leidig, from Tulare County to Los Angeles County.

Benjamin F. Miller, from Yuba-Sutter County to Los Angeles County.

Allen H. Williams, from Santa Barbara County to San Mateo County.

J. Guild Wood, from Los Angeles County to Oklahoma State Association.

Resigned (1)

John A. Crowe, from San Francisco County.

In Memoriam

Alvarez, Luis Fernandez. Died at Los Angeles, May 26, 1937, age 84. Graduate of Cooper Medical College, San Francisco, 1887, and licensed in California the same year. Doctor Alvarez was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✝

Brown, Newbern Nuckolls. Died at Los Angeles, May 30, 1937, age 54. Graduate of the College of Physicians and Surgeons, Los Angeles, 1905. Licensed in California in 1906. Doctor Brown was a member of the Kern County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✝

Rook, Charles Wesley. Died at Montrose, April 15, 1937, age 77. Graduate of the University of Michigan Medical School, Ann Arbor, 1883. Licensed in California in 1923. Doctor Rook was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✝

Sweet, Earl Bertrand. Died at Los Angeles, May 22, 1937, age 62. Graduate of the University of Pennsylvania School of Medicine, Philadelphia, 1898. Licensed in California in 1899. Doctor Sweet was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

OBITUARY

Dwight H. Trowbridge
1870-1937

Died at Pasadena, California, May 4, 1937, of bronchopneumonia, at the age of 66. Born in Ohio, September 1, 1870. Received medical education at Cooper Medical College in San Francisco, and graduated from Tulane Medical School, New Orleans, Louisiana, in 1893. Doctor Trowbridge did general practice in Fowler, California, for two years after graduation; then moved to Fresno, California, as an eye, ear, nose, and throat specialist, where he resided for forty years. He married Margaret A. MacCormack in 1895, by whom he had two children: Elizabeth Trowbridge Kent of Berkeley, California, and Dwight H. Trowbridge, Jr., M. D., of Fresno, California.

Doctor Trowbridge took postgraduate work at the New York Postgraduate Hospital, Manhattan Eye and Ear

Hospital, and at the Allgemeinen Krankenhaus in Vienna. He was a member of the American Medical Association; the American Laryngological, Rhinological, and Otological Society; the California State Medical Society; the Pacific Coast Otological Society; the Fresno County Medical Society, of which he was past president; and a Fellow of the American College of Surgeons.

He was examiner for the Aeronautics Branch of the Department of Commerce. He was one of the founders of the Burnett Sanitarium Company and was secretary of the company during the entire time of its existence up to the date of his death.

Doctor Trowbridge was interested in all phases of public action that affected the medical profession, taking an active part on legislative committees. He was an untiring worker in all things in which he became interested or in which he felt a responsibility.

He was sincerely sympathetic with his younger associates and was one of the organizers of the local scholarship fund.

In the death of Doctor Trowbridge the profession has lost not only a capable physician, but a truly sympathetic and active worker.

O. B. Doyle, M. D.,
Secretary, Fresno County Medical Society.

✠

Granville MacGowan

To the Family of Dr. Granville MacGowan:

Resolutions paying tribute to the memory of Dr. Granville MacGowan were read at the annual meeting of the American Urological Association, which convened in San Francisco, California, on June 26, 1935. They were unanimously adopted and have been made a part of the permanent records of the Association. On the occasion of the reading of the resolutions the assemblage stood for one minute in silence as a reverential tribute to the member commemorated therein.

The resolutions are presented to you in sympathy and respect.

Very sincerely yours,
American Urological Association.
Clyde Leroy Deming, M. D.,
Secretary.

Through the death of Dr. Granville MacGowan of Los Angeles, an ex-president of the California Medical Association, the medical profession has lost one of its most highly respected and truly revered members. He was a great and benevolent man, the natural fruits of his sterling character and outstanding intellectuality. His brusque exterior was ofttimes a mask for some kind and generous deed.

Coming as he did some fifty years ago to Los Angeles, then a small, undeveloped community, far from the medical centers of our country, he proved himself one of the greatest of that small group of courageous medical pioneers in the Southwest. Probably more than any other man in Southern California and its tributaries, he has left his influence on the practice of medicine and on his chosen field of medicine. In many ways his professional contributions and influence have been not only local, but international. To those of us who have known him intimately these many years and have enjoyed the privilege of his intellectual perspective and guidance, comes a bereavement through death comparable only to our esteem in life; comes the rare appreciation of his earnest and fundamentally sound day-to-day teachings as distinguished from any of those periodic attempts to be spectacular and theatrical, an offense from which he was always totally devoid.

It can be truthfully said his influence on the practice of medicine, and surgery in particular, in this part of the country is so ingrained as to have become woof and warp of the fabric, and not one of those greatly to be avoided careers of tinsel-draped pinnacles.

The most fitting monument we can erect to the esteemed memory of Doctor MacGowan is for each member of this group to imitate, to the best of his ability, the courage, the goodness, and supremacy of this truly great man.

THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION†

President's Annual Report for the Year 1936-1937

Since a detailed account of the activities of the Auxiliary will be furnished by the members of the State Board and the county presidents at a later session of the convention, this report will be limited to a general survey of the year's work.

A year ago this month I attended the annual meetings of the Woman's Auxiliary to the American Medical Association and to the California Medical Association. You have received my résumé of the activities of the former body. The knowledge gained and the contacts made on those occasions have been a constant source of help to me in my work. The value of attendance at the National convention cannot be overestimated. It is indispensable for the president-elect if she is to have a comprehensive view of her own task. Moreover, I urge every member of the Auxiliary, whether or not an officer, to go to the National convention. Your loyalty to your organization will be strengthened and your vision of its possibilities enlarged a hundredfold.

Some time was required for me to digest the wealth of facts and impressions which filled my mind at the close of the meeting at Coronado and to chart my course—a course that was to follow these directions.

The fundamental objectives of our work remain the same. The points on which emphasis should be placed change with changing conditions. Since, in my opinion, the greatest influence of the Auxiliary is exercised through the personal contacts of individual members, and since there is a definite need at this time for making our influence felt as widely as possible, I have seized every opportunity to place before the county units the goal of a 100 per cent membership. Unusual progress has been made in some instances while officers in every county have coöperated earnestly.

There is a rapidly increasing number of the citizens of California who believe that the care for all the sick should be a function of the State. Various plans to furnish such medical care, together with the legislation necessary to set them in operation, are being proposed. It follows that it is important for the public to receive accurate information as to the ultimate results of such legislation. Here is a type of public education in which every member of the Auxiliary may participate. It was with this public service in mind that an intensive membership campaign was recommended.

It seemed essential also in preparation for this service that our members should become informed immediately concerning various aspects of socialized medicine and other kindred subjects which are occupying the attention of our state legislators at the moment. This has been another matter which I have stressed this year.

The County Auxiliary is the unit with which a member is most closely identified and it naturally commands her first loyalty. Yet her outlook broadens, her appreciation of the possibilities of the Auxiliary increases, the more she thinks in terms of the State as well as the local group. It seemed to me that such an enlarged outlook should be encouraged. A step had been taken already in this direction in the presentation of the membership trophy by Mrs. Philip Doane. For, as it passes from county to county and name after name is engraved upon it, it becomes a symbol of an increasing and united membership. The State Board this year has taken another step in this direction by inaugurating a State project, a lending library of books and other health education material for the use of the Auxiliary members and other health agencies. It is hoped that this library not only will be of use to the auxiliaries, but will

†As county auxiliaries of the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Fred Zumwalt, Chairman of the Publicity and Publications Committee, 3880 Clay Street, San Francisco. Brief reports of county auxiliary meetings will be welcomed by Mrs. Zumwalt and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the Editor to allocate two pages in every issue for Woman's Auxiliary notes.

enlist their financial support, thus in two ways linking them to the State organization. In September the Board voted a small sum to start the project.

Since then, through Mrs. Glaser's efforts, a collection of books has been assembled. Also Mrs. John V. Barrow has been appointed librarian, a position which, in the judgment of the Board, should be held for a period of years but should not necessitate membership on the State Board. In March San Diego County Auxiliary, by a generous gift of $50, endorsed the library project and made possible further additions to its contents. To the members of this, my own county, I extend my deep appreciation of this expression of personal loyalty and of interest in Auxiliary work. May other counties be prompted to similar action.

Our accomplishment this year in the two activities sponsored so strongly by the National Auxiliary, the Health Institute and *Hygeia,* has been gratifying.

Santa Barbara County deserves high commendation for the success of its first Health Institute. It was held two days, being participated in by some sixteen national and local health agencies, and offered a varied program of lectures, demonstrations and exhibits, pictorial and mechanical. San Diego County deserves congratulation on the results of its second annual Health Day program. That the community appreciates this opportunity to receive authentic information about health problems is shown by the fact that the attendance was double that of the previous year. It is to be hoped that other counties will inaugurate similar enterprises next year. Helpful suggestions regarding methods are obtainable from the records of Santa Barbara, San Diego, and Alameda counties—the three counties which thus far have undertaken this project. Write the State Public Relations chairman for the information.

So much fine work for *Hygeia* has been done that it is a temptation to comment on the results in each county. Marin County, however, merits the congratulations and thanks of the entire Auxiliary for the distinction of earning California a place among the seven states in which counties received honorable mention for their achievements in the McReynolds *Hygeia* subscription contest.

One new county has joined our ranks this year. We are happy to welcome Monterey County with its twenty-five active members, who together with the members of the Santa Clara Auxiliary have been active indeed in arranging for this convention.

I regret to inform you that Siskiyou County disbanded last June. The group was small and the members so widely scattered, it was difficult to get together. Therefore, when two of the most Auxiliary-minded moved out of the county the others felt they could not carry on.

During the year it has been my privilege to be the guest at meetings in fifteen counties. The report of these visits appeared in the last issue of our news sheet, *The Courier.*

The State Board has met four times, with an average attendance of over 75 per cent. Eleven county presidents attended one or more of these sessions.

Dr. George H. Kress, Editor of California and Western Medicine, honored the Woman's Auxiliary by devoting an editorial page of the March issue to comment on its value and accomplishments. The following is a quotation from Doctor Kress' article: "A Woman's Auxiliary to every County Medical Society would mean stronger component county units and a greater, more efficient State Association."

This year, as in the past, all the members of our Advisory Council have given generously of their time to the interests of the Auxiliary. Dr. W. J. Kerr, the chairman, has passed upon the various programs, and on several occasions advised me personally.

Dr. Frederick C. Warnshuis, Executive Secretary of the California Medical Association, early in the year tendered us the services of his office. Members of the State Board have called upon him frequently and found him generous with his time and most sympathetic with our problems.

Our thanks are given Mr. Ben H. Read, Executive Secretary for the Public Health League of California, who has addressed several county auxiliaries, as well as the State Board. While these talks were instructive, even more valuable to the Auxiliary has been the stimulus we received from Mr. Read's frequent expression of his belief in the potential power of our organization.

There is no yardstick by which the success of the efforts of the Auxiliary in its most important work—the furtherance of public health education—may be measured. However, the records of the membership and *Hygeia* campaigns, which show an increase of 26 per cent and 40 per cent, respectively, may serve as an index of accomplishments in other fields.

As time passes, the Auxiliary should grow in numbers, in breadth of vision, in understanding of its objectives, in the esteem of the Medical Association and the public, and in its influence in determining public health conditions.

If during this year I have contributed to progress along any of these lines, I am happy. Thank you for the confidence you have placed in me and for the privilege of serving you. Respectfully submitted,

Mrs. Andrew J. Thornton, *President.*

News Letter

Dear Auxiliary Members:

Greetings!

Much has been written in retrospect. The aims of our organization, we know; the work already accomplished has been often and ably reviewed; our leaders (those who so carefully and skillfully led the way) have been highly and justly praised. So the days of pioneering are over and from now on it is not what we have done, but what we will do that counts. "To serve" has become almost a slogan and "opportunity knocks!" San Francisco, the convention city for the American Medical Association in 1938, and all of California the hosts! Just one short year in which to prepare for this avalanche of friends from all over the country. It will be your duty to make their visit enjoyable, interesting, and memorable.

As yet election returns have not been received from all the counties, but those already in will be found in the usual place.

May I take this opportunity to thank Mrs. Robert Furlong, your former and most efficient chairman of publicity, for her many and helpful suggestions to me. If at the expiration of my year I have served you as well as she, I shall be glad. Most sincerely yours,

Mrs. Fred H. Zumwalt.

Component County Auxiliaries

Alameda County

The Woman's Auxiliary to the Alameda County Medical Association held its regular meeting on Friday, May 21, 1937, at the Oakland Club, Oakland.

Members and guests were entertained with a special Mother's Day program, Mrs. W. C. Sharpsteen bringing greetings from the mothers, and Mrs. Helen Gleason bringing greetings from the daughters. A very delightful musical program followed, after which the business meeting was held. Mrs. William Sargent gave a most interesting talk on "Highlights of the State Convention." Mrs. A. A. Alexander, Chairman of the Membership Committee, reported that the paid-up membership now totaled 253, the greatest number since its organization. Mrs. Clarence Page gave the annual president's report for the year; Mrs. Alexander, the new president, then took over the meeting.

After adjournment, tea was served in the clubroom, which had been beautifully decorated with pink May blossoms and spring flowers.

Mrs. Robert A. Glenn, *Publicity Chairman.*

Los Angeles County

The Woman's Auxiliary to the Los Angeles County Medical Association met at luncheon May 25 at the County Medical Building. Guests of honor were health chairmen of the Parent-Teacher Association. Over 125 members were present.

Mrs. Karl Von Hagen read a splendid paper on *Evolution of the Hospital.* A musical program was given by Mrs. Walter Wessels, followed by the presentation of awards in the Parent-Teacher Association Health Contest sponsored by the Auxiliary.

This contest marks only the beginning of the Auxiliary's efforts toward health education, and its success was largely due to the chairmanship of Mrs. Paul Quaintance of the Public Relations Committee. Mrs. Quaintance reports in part:

"The objectives of the Public Relations Committee for the year 1936-1937 have been to promote health education among lay groups and to effect such coöperative endeavor

with the Los Angeles County Medical Association as would make the health education program of definite value.

"Because the Parent-Teacher Association was organized for the welfare and health of the child, and inasmuch as its organization for study in health education already was in existence, it was chosen as a logical group in which to initiate a project in health education. The object of this project was to encourage the competitive endeavor of local health chairmen in the city and county by offering rewards to the four chairmen in each district who had promoted and followed to completion the most effective plans of health education. The subjects studied and the method of approach were left to the discretion of the local groups. The lecture method, discussion groups, and promotion of health activities in the community, the school, and the home, were encouraged. Materials were furnished to health chairmen wherever interest was manifested. Approximately two hundred sample copies of *Hygeia* were distributed. Seventeen subscriptions to this magazine were obtained from local health chairmen. Study envelopes of the Woman's Auxiliary, on contagious diseases, milk, blindness, and common defects in children, were distributed to 150 Parent-Teacher Association groups. Health plays were given to seventy health clubs for production by the children. Mimeographed programs of radio broadcasts of the Los Angeles County Medical Association were distributed three months in advance for the use and benefit of radio-listening groups.

"From the speakers' bureau organizations, forty-three speakers were secured who gave health talks before Parent-Teacher Association groups.

"In coöperation with the Health Department of the Tenth District Parent-Teacher Association, material and counsel were offered to aid in the organization of health clubs, some of which met weekly for from four to ten weeks, an organized continuity of study of health problems was made possible.

"In furtherance of the principle of practical application of preventive medicine among children of the preschool age group, contact was established between the Los Angeles County Medical Association and chairmen of the Summer-Round-Up (a general physical examination for the purpose of detecting physical defects prior to the child's admission to school). The purpose of this contact was to encourage Summer-Round-Up chairmen to have these examinations made by regular doctors of medicine rather than by irregular practitioners or cultists. In this connection, permission was obtained from the Council of the Los Angeles County Medical Association to publicize the telephone number as a source of reliable health information. This number remains constant, and frequent mention of it to lay groups will encourage the public to consult the county medical association as a clearing house for facts pertaining to health."

At this meeting also was the election of new officers as follows: Mrs. Eliot Alden of Los Angeles, president; Mrs. Mark A. Glaser of Los Angeles, first vice-president; Mrs. Edward Winslow Jones of Pasadena, second vice-president; Mrs. Rufus Holt of Los Angeles, recording secretary; Mrs. C. G. Stadfield of Los Angeles, treasurer.

Directors—Mrs. John Martin Askey of Los Angeles, Mrs. William H. Leake of Beverly Hills, Mrs. Newell Jones of Los Angeles, Mrs. Francis Hertzog of Long Beach, Mrs. P. A. Gallant of Huntington Park, and Mrs. E. B. Plimpton of Los Angeles.

The meeting closed with many tributes to the retiring president, Mrs. Clifford A. Wright, who has made this year a memorable one through her friendliness and graciousness as well as through her efficiency.

Mrs. Robert L. Carroll, *Corresponding Secretary.*

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Mrs. Clifford A. Wright, President of the Los Angeles County Auxiliary, entertained with a tea at her home on May 7 in honor of Mrs. Robert E. Fitzgerald, National President of the American Medical Association Auxiliary.

* * *

Circulating Library.—A circulating library, whose volumes are available to all members, has been founded by the Woman's Auxiliary to the California State Medical Association. It has its quarters in the Library of the Los Angeles County Medical Association at 634 South Westlake Avenue, Los Angeles.

To help Auxiliary members in community health endeavors is the main purpose of the library. A book review of Heiser's *American Doctor's Odyssey*, a program on children's health habits, or a discussion tracing the story of some great plague such as yellow fever—these are the types of group work the library hopes to supplement. It is believed Auxiliary members who are organizing Parent-Teacher Association programs will find the circulating library volumes especially valuable. In this connection a number of one-act health plays, to be presented by children, are available.

The library is starting with books chosen to supply the varied types of materials wanted by Auxiliary members. Thus there are books on medical history, eugenics, medical personalities, health problems of youth, specific diseases, and similar subjects.

The Auxiliary is indebted to Mrs. Andrew J. Thornton, who first conceived the idea of the library. We also wish to acknowledge gifts of $50 from the San Diego Woman's Auxiliary, two of Dr. Josephine Jackson's books which she donated, and several volumes from Mrs. Elmer Belt and Mrs. John V. Barrow.

San Francisco County

The Woman's Auxiliary to the San Francisco County Medical Society, through its president and board of directors, has made definite plans for the coming year.

There will be six regular meetings held at the home of the County Medical Society, 2180 Washington Street, on the third Tuesdays of September, October, November, January, March, and April, at 1:30 p. m. These meetings will be devoted to hearing major health problems discussed by distinguished speakers. On September 16, Dr. Philip H. Pierson, President of the California State Tuberculosis Society, will talk on the *Present Status of Bovine Tuberculosis and Its Relationship to Public Health.* This is a subject of great importance to all citizens of California, and members of the Auxiliary are given the privilege of inviting guests to this meeting.

The President and various members of the Board of Directors will be at home to all members of the Auxiliary on Monday afternoons, beginning September 13, from two until six o'clock, at 2180 Washington Street. Tea will be served, and we hope many will avail themselves of this opportunity to become acquainted with their organization and its members.

The officers for the year 1937-1938 are as follows: Mrs. Hans Barkan, president; Mrs. Lovell Langstroth, first vice-president; Mrs. Howard W. Fleming, second vice-president; Mrs. Julius Sherman, recording secretary; Mrs. William W. Newman, corresponding secretary; Mrs. John E. Humber, treasurer.

Board of Directors—Mesdames Fred H. Zumwalt, Frank H. Rodin, A. S. Musante, Howard B. Dixon, Harry R. Oliver, George H. Becker, Otto Laist, Anthony B. Diepenbrock, and Zura O. Waters.

The office of membership chairman will be conducted by Mrs. Edmund J. Morrissey.

Mrs. Fred H. Zumwalt will serve as editor of the Auxiliary *Courier*, the official publication of the State organization, issued in April and November.

Mrs. J. C. Geiger will act as councilor for the Sixth District. Mrs. Harry Oliver, *Chairman of Publicity.*

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Santa Clara County

The regular meeting of the Woman's Auxiliary to the Santa Clara Medical Association was held at the Sainte Claire Hotel on May 10, Mrs. Charles E. Moore, presiding. Over thirty members were present.

The following is a list of the officers for the coming year: Mrs. Henry Milo, president; Mrs. Cecil M. Burchfield, president-elect; Mrs. Morgan Dillon Baker, vice-president; Mrs. J. I. Beattie, treasurer; Mrs. Daniel Brodovsky, recording secretary; Mrs. Wesley Wright, corresponding secretary.

Dr. Jay C. Elder of San Jose State College was guest speaker, his topic being *The Progress of Medicine.*

The June meeting was held at the home of Mrs. Enos Paul Cook, 1175 University Avenue, on the 7th of the month. Two days later, on June 9th, Mrs. Cook graciously opened her home for a bridge tea, the members of the Auxiliary sharing the occasion.

This was the closing gathering of this group until fall, when Mrs. Henry Milo will assume the duties of president, succeeding Mrs. Charles E. Moore.

Mrs. Daniel Bilker, *Chairman of Publicity.*

MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings

American Medical Association, San Francisco, June 7–11, 1938. Olin West, M. D., 535 North Dearborn Street, Chicago, Secretary.

California Medical Association, Hotel Huntington, Pasadena (date to be announced later), 1938. F. C. Warnshuis, M. D., 450 Sutter Street, San Francisco, Secretary.

* * *

Montana Medical Association, Great Falls, July 13-14. Thomas L. Hawkins, M. D., 50 North Main Street, Helena, Secretary.

Pacific Northwest Medical Association, Great Falls, Montana, July 8-10. C. W. Countryman, M.D., 407 Riverside Avenue, Spokane, Washington, Secretary.

Medical Broadcasts*

Los Angeles County Medical Association

The radio broadcast program for the Los Angeles County Medical Association for the month of July is as follows:

Thursday, July 1—KECA, 10:45 a. m., The Road to Health.
Saturday, July 3—KFI, 9:15 a. m., The Road to Health; KFAC, 10:15 a. m., Your Doctor and You.
Thursday, July 8—KECA, 10:45 a. m., The Road to Health.
Saturday, July 10—KFI, 9:15 a. m., The Road to Health; KFAC, 10:15 a. m., Your Doctor and You.
Thursday, July 15—KECA, 10:45 a.m., The Road to Health.
Saturday, July 17—KFI, 9:15 a. m., The Road to Health; KFAC, 10:15 a. m., Your Doctor and You.
Thursday, July 22—KECA, 10:45 a.m., The Road to Health.
Saturday, July 24—KFI, 9:15 a. m., The Road to Health; KFAC, 10:15 a. m., Your Doctor and You.
Thursday, July 29—KECA, 10:45 a.m., The Road to Health.
Saturday, July 31—KFI, 9:15 a. m., The Road to Health; KFAC, 10:15 a. m., Your Doctor and You.

Physical Examination of Great Aid to Education.—Physical examinations are of great importance to education not only through their ability to acquaint young students with the importance of good health, but also in preparing preprofessional students for their careers.

This opinion was expressed in the June issue of the University High School Journal by Dr. Ruby L. Cunningham, professor of hygiene and physician for women at the University of California.

Even under the most unfavorable conditions, said Doctor Cunningham, a physical examination cannot fail to impart information and, by relating it to the health of the one examined, contribute to his education. Through such an examination students may be led to see their physical well-being as a personal responsibility and at the same time as a civic asset.

It is important that the examining physician take all possible pains to put the students at ease since many approach such a personal examination with some apprehension. At the University of California the station-to-station method of examination, in which the student is allowed to see others being examined before his turn comes, has been used with success.

Unusual educational opportunities are afforded by the examination which precedes professional training. Such examinations are required in many places of prospective librarians, medical students, social service workers, and almost universally of nurses and teachers.

*County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour, and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

Effect of Vitamin Filtrate on Gray Hair Being Studied.—Evidence tending to show that a vitamin B filtrate factor in whole wheat, whole grains and other foods, prevents or arrests the graying of hair in humans and animals, is being put to an elaborate experimental test by the Household Science Department of the University of California. In preliminary tests made by the department on two rats, it was found that a special diet containing the filtrate not only arrested the graying of hair, but actually returned it to its original color, together with a general increase in vitality. The tests have now been expanded to include more than one hundred rat subjects, to determine if any definite conclusions are possible.

International Union Against Tuberculosis.—The tenth conference of the International Union Against Tuberculosis, postponed from 1936, will be held in Lisbon from September 5 to 9 inclusive, under the chairmanship of Prof. Lopo de Carvalho. The three topics of discussion will be: radiological aspects of the pulmonary hilum and their interpretations; primary tuberculosis infection in the adolescent and the adult; the open case of tuberculosis in relation to family and domestic associates. The speakers from the United States will include Dr. Charles J. Hatfield, Dr. Henry C. Sweeny, and Dr. Robert E. Plunkett. The local committee will present a program of receptions and excursions to be announced later. Information regarding program, membership in the Union, credentials, etc., may be obtained from the National Tuberculosis Association, 50 West Fiftieth Street, New York.

Hospital Rate Change Looms.—A new schedule of rates for services at the Los Angeles County General Hospital to replace the present flat rate of $4 per day per patient has been prepared by the budget and report division of the County Auditor's Department. It will be presented in a few days to the Board of Supervisors for approval.

The new rates are practically made compulsory under a recent ruling of the District Court of Appeal which, in the case of O. P. Goodnall against the Board of Supervisors of Kern County, not only defined the class of patients that can be treated at a county hospital, but held that the fees should cover the actual cost of services given.

Under the new schedule a patient will be charged according to the services given him. These charges will be different, according to the ward he is in.

Those persons who are indigents will be given treatment the same as now, but a bill for the cost of their treatment will be turned over to the hospital's collection department.—*Los Angeles Times,* June 24, 1937.

Hard of Hearing to Have Special Work at the University of California at Los Angeles Session.—Persons handicapped by deafness have been especially provided for in the curriculum of the University of California at Los Angeles summer session, which opens here June 26, according to J. Harold Williams, Dean of the session. Three special training courses of interest to teachers of speech and lip-reading, as well as to persons hard of hearing, are planned by the University, with Mrs. Nellie Alford Hair and Mrs. Mary Roger Miller, authorities in this field, as instructors. They will offer summer courses in the Jena method of speech-reading as adapted for classes of adults and children, and another similar vocational course on the conservation of speech and hearing. These courses are open to everyone interested in learning the methods for personal use or teaching.

Application for admission to the University of California at Los Angeles summer session courses are currently being taken at the office of the Dean of Summer Session, University of California at Los Angeles, Administration Building, 405 Hilgard Avenue.

Symballophone Makes Disease Announce Itself.—The "symballophone," revolutionary rival of the physician's stethoscope, was given a demonstration before the annual meeting of the American Medical Association in Atlantic City, with Dr. William J. Kerr of the University of California Medical School, its inventor, as the demonstrator.

This mechanical short-cut to the heart of many human complaints was developed by Doctor Kerr after long experimentation with tuning forks and other aids not ordinarily associated with medicine. The device has two sets of cords and two sensitized discs. One cord goes directly from the disc to the ear. The other branches off to the opposite cord and the opposite ear. Through a series of adjustments at the junction of the cord, it is possible to detect instantaneously any differing chest, bronchial or other sounds, and also to note the difference in intensity of such sounds. These differing sounds are brought to the ear without any apparent interference, one with the other. The ordinary stethoscope can detect only one sound at a time, and the important factor of difference in pitch or density between sounds is often lost because of this fact.

New Treatment for Back Pains Holds Great Promise.—Clinical surgical procedures developed by the medical schools of the University of California and Harvard University and the Mayo Clinic for the treatment of various pains in the lower back, including some forms of sciatica, have met with "excellent results." This is announced by the Division of Surgery of the University of California School.

It had previously been determined that the protrusion of cartilage into the spinal canal following accident is the cause of a vast number of these complaints, according to Dr. Howard C. Naffziger, professor of surgery. It has now become possible to closely diagnose and remove the trouble. A number of patients have been treated according to the new procedure, and a high percentage of cures has been obtained.

Normally, this cartilage lies between the vertebral body and the spinal canal. Under certain conditions of undue strain or disease, this protective buffer breaks loose and dislocates backward into the canal. The type of surgical intervention worked out in the new procedure is regarded as a distinct advance in the treatment of chronic pains of the lower back due to this cause.

New Procedures to Check Hemorrhage Prove Successful.—Hemorrhage, one of the greatest of medical and surgical bugaboos, has been robbed of some of its principal hazards in significant procedures carried on by the University of California Medical School and other institutions. Through long-term research and experimentation with certain diets and medication, the Division of Surgery of the Medical School is able to announce a control of the bleeding tendency in jaundice and the possibility of surgical intervention on a definitely more satisfactory basis than heretofore. Simultaneously the Division of Medicine announces the successful outcome of certain experiments with x-ray radiation over the spleen to overcome idiopathic hemorrhagic attacks, or the types that originate without apparent external cause.

The bleeding tendency in jaundice is encountered with surgical intervention to remove the causative gall-stones, tumors, parasites or inflammations from the bile duct. It is caused primarily by the infiltration of sulphur compounds into the blood through the breakdown of tissues in the body or through certain dietary disturbances, and is a major handicap when surgical relief is called for.

In the work on the idiopathic types of hemorrhage, the University doctors considered evidence that the spleen is the primary focal point for the disease, although there may be others. The investigators were able to conclude that x-ray irradiation of the spleen resulted in a rapid rise in the blood platelets in a number of patients, the increase being evident within from twenty-four to forty-eight hours after the first exposure. With this increase there was a corresponding decrease in the hemorrhagic inclination, a cessation of spontaneous bleeding and a reduction in the clotting time. It was emphasized, however, that the procedure is not specific for such types of bleeding as hemophilia.

New Vitamin Shown to Have Many Possibilities.—Far-reaching possibilities, particularly in the checking of hemorrhagic disease in poultry, most of the common species of birds, and some animals, are revealed in experiments on vitamin K, the potent new dietary factor which, by a strange coincidence, was discovered simultaneously by scientists of the University of California and the University of Copenhagen. This is announced by Dr. H. J. Almquist, assistant professor of poultry husbandry at the University of California, who has succeeded in obtaining the vitamin in a crystalline fraction from concentrates obtained primarily from dried alfalfa.

One crystal fraction was found to be eight times as potent in inducing blood clotting in chicks as the fraction of the vitamin still remaining in solution. It has been determined also in experiments made by Dr. H. Dam in Copenhagen that the vitamin is potent in checking hemorrhagic disease in turkeys, ducks, geese, canaries, and other types of birds. One human experiment for the checking of hemophilia was without effect, but medical men are continuing their interest in the vitamin in this particular.

American Congress of Physical Therapy: Cincinnati, September 20-24, 1937.—Cincinnati and its medical groups will be host to the American Congress of Physical Therapy, which meets in the Ohio city, September 20 to 24. Plans are being made for a very large attendance, which will be comfortably cared for at the Netherland Plaza Hotel. Of special interest is the scientific program with its diversified symposia, clinical conference groups, demonstration clinics, and sectional meetings. Every specialty in medicine and surgery will be adequately represented. The scientific exhibits will be extensive and varied and should comprise an important part of the entire session. The technical exhibits will prove profitable in information to those who seek familiarity with the newer apparatus and equipment in physical therapy.

From every standpoint the sixteenth annual session offers an intensive "refresher" course in which willl be embraced subjects like shortwave diathermy, ultra-violet radiation, low-voltage currents, exercise, massage, etc. Featured symposia include fractures, vascular diseases, poliomyclitis, fever therapy. There will be no registration fee, but the meeting is open only to duly licensed physicians and properly vouched for technical assistants. Plan now to attend the Congress session in September.

Physical Therapy Seminar.—The fifth annual seminar of the Western Section of the American Congress of Physical Therapy, in coöperation with the Pacific Physical Therapy Association, was held at Los Angeles on June 17, 1937, at the Los Angeles County Medical Building, 1925 Wilshire Boulevard.

The Seminar Committee was fortunate in securing as guest speaker, Dr. Frank H. Krusen of Rochester, Minnesota. Doctor Krusen is the author of more than two score articles on physical therapy problems, and has performed much original research work in this field.

The Seminar program was as follows:

Thursday, June 17, 9:30 a. m.
W. W. Worster, M. D., Chairman

Address of Welcome—W. W. Worster, A. M., M. D.
Fever Therapy by Physical Means—Frank H. Krusen, M. D., Rochester, Minnesota.
Practical Considerations in Obliterative Arterial Disease—Harold E. Crowe, M. D.
Physical Therapy in Diseases of the Biliary System—Fred B. Moor, M. D.

Thursday, June 17, 2 p. m.
Clinton D. Hubbard, M. D., Chairman

Physical Therapy in Arthritis—Frank H. Krusen, M. D., Rochester, Minnesota.
Manipulative Surgery: Studied with the Aid of Motion Pictures and Demonstration with Patient—G. Mosser Taylor, M. D.
Fundamentals in the Control of Therapeutic Waves—Presented with Graphic Descriptions—William L. Comyns, B. S., M. S.
Light Therapy—Frank H. Krusen, M. D., Rochester, Minnesota.

Banquet Session—Thursday, June 17, 7 p. m.
Los Angeles County Medical Building

Fred B. Moor, M. D., Chairman.

John Severy Hibben, M. D., Toastmaster.

Recent Advances in Physical Therapy Methods—Frank H. Krusen, M. D., Rochester, Minnesota.

Announcement: The American Congress of Physical Therapy will hold the sixteenth annual session at Cincinnati, Ohio, on September 20 to 24, 1937, at the Netherland Plaza Hotel. For information, write to American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago, Illinois.

MEDICAL JURISPRUDENCE†

By HARTLEY F. PEART, ESQ.
San Francisco

Legal Relationship of Physicians to Their Patients and Scope of Physicians' Authority with Respect to Physical Examinations, Treatment, and Operations

The relation between a physician and his patient is said by the courts to be one of trust and confidence. Consequently, it is also the law that all dealings between a physician and his patient will be closely scrutinized, particularly those inuring to the benefit of the physician. Because of the trust and confidence involved, communications between a physician and his patient are privileged. (See Calif. Code of Civ. Pro., Sec. 1881.) A breach of medical confidence is universally regarded as unethical. But, in so far as the courts are concerned, the question whether a disclosure of a professional confidence may be the foundation of an action at law by the patient, depends on the character of the disclosure made. In other words, a breach of medical confidence is not *always* unlawful. For example, in *Simonsen* vs. *Swenson,* 104 Neb. 224, 177 N. W. 831, a physician who, in good faith and with reasonable grounds, decided upon confidential information given by his patient that the patient had a contagious disease, was not liable in damages to the patient for such disclosure to others made in order to prevent the spread of the disease. In so far as the law is concerned, if a disclosure of professional confidence will have a tendency to promote the general welfare of the community, a disclosure will not be actionable in the courts; but if a disclosure is made maliciously or for the sole purpose of injurying the patient, an action for damages would probably be allowed.

The relation of physician or surgeon and patient is also said to be one arising out of a contract, express or implied. If there is an oral or written agreement relating to the rights and duties of the physician with respect to his patient, there is an express contract. If there are merely acts and conduct by both parties the contract is said to be implied.

Since the duty owed to a patient is measured and determined primarily by the contract of employment, a physician or surgeon may by special agreement or notice limit the extent or scope of his employment.

Unless the terms of employment or notice limit the services to be given, the relation of physician and patient and the physician's employment continue until the physician's services are no longer needed or until terminated by common or mutual consent or at the will of either party.

As the relationship between a physician and his patient is contractual in nature as well as confidential, the ordinary rules with respect to breach of contract are applied by the courts in actions relating to the performance by the physician of his duties. It must be remembered that a physician who accepts a patient has entered into a contract and as such is obligated to render all of the services contemplated by the parties and is privileged to examine, treat or operate upon the body of the patient in so far as such physical contact is necessary in order to carry out the duties imposed by the employment contract, *but only to that extent.* If a physician exceeds the scope of his employment, he may not rely upon the contractual relationship of physician and patient and he may be guilty of a battery or a trespass or both.

An illustration of the foregoing legal principles may be helpful. Some years ago a physician was employed to perform a surgical operation for the removal of a hernia in the region of the right groin of the patient. The operation was performed, and some months later an action at law was commenced against the physician in which the patient alleged that the physician had, in the course of performing the hernia operation, committed a trespass in that he had removed one of the patient's testicles without his consent and against his express direction. One of the District Courts of Appeal held that the patient's allegations stated a cause of action and that if the patient could prove the truth of his allegations he would be entitled to recover damages. The Court said:

> The contention is made by (the physician) that the complaint states no cause of action for the removal of plaintiff's testicle without his consent. We think that it does, and that if this issue alone had been submitted to the jury a finding upon it in favor of plaintiff might have been sustained.

See *Markhart* vs. *Zeimer,* 67 Cal. App. 363.

The task of enumerating and discussing all of the acts which a physician may do in a particular case and which may legally be beyond the scope of his employment contract would require a great deal more space than is available. Dr. William C. Woodward, Director of the Bureau of Legal Medicine and Legislation of the American Medical Association, has discussed this subject fully and accurately in an excellent article appearing in the issue of January 4, 1936 (Vol. 106, No. 1) of the *Journal of the American Medical Association, entitled* "Authorization of Physical Examinations, Treatment, Operations, and Autopsies."

Doctor Woodward's opening paragraph is a concise summarization of the legal principles involved. It is as follows:

> A physical examination of a patient cannot be made or an operation done, lawfully, without authority. Authority is necessary, too, before a physician can lawfully apply to a patient any prophylactic, diagnostic or therapeutic agent, such as a vaccine, a splint, roentgen rays, or an anesthetic or any other drug. A person who does any of these acts without authority commits a battery or a trespass, or both, for which, according to the circumstances of the case, he may be fined or imprisoned or made to pay damages. Even after the death of a patient his right to freedom from interference automatically passes in a modified form to his spouse or to his next of kin, and any unauthorized interference with his dead body exposes the offender to a suit for damages by the person entitled to its custody. My purpose in this paper is to show, so far as the limits of available space permit, what constitutes lawful authority for the doing of these acts, the performance of which plays so large a part in the daily work of the medical profession.

"Authority" as used by the courts means primarily inclusion of the particular act to be done within the scope of the employment contract. Normally, "authority" is obtained by the physician from his patient by means of oral or written consent.

Generally speaking, if consent to the doing of a particular act is obtained, no legal liability for the doing of that act can arise, but this is not always true, for as Doctor Woodward states:

> Consent, however, even by the patient himself, is not necessarily valid. Consent may be invalid (1) because it undertakes to authorize an unlawful act or an act contrary to public policy, or (2) because it comes from a person who has no lawful right to give consent, or (3) because it was obtained by misrepresentation or fraud.

Doctor Woodward's article contains a discussion of the various conditions which may make a consent invalid. Every member of the Association is urged to read the article carefully. If it has been read once before, read it again. It will do no harm and may prevent an unfortunate experience to refer to the article every time there is the least doubt concerning a contemplated physical examination, treatment, or operation.

111 Sutter Street.

†Editor's Note.—This department of CALIFORNIA AND WESTERN MEDICINE, containing copy submitted by Hartley F. Peart, Esq., will contain excerpts from and syllabi of recent decisions and analyses of legal points and procedures of interest to the profession.

SPECIAL ARTICLES

SOME INTERESTING NEWSPAPER ITEMS*

In the current issue of California and Western Medicine, editorial comment is made on a Qualifying Certificate law and on cultist healing art boards. In connection therewith, practitioners of non-sectarian medicine may be interested in reading the press dispatches of date of July 23, from the state convention of one of the groups to which reference was made:

From the Los Angeles *Daily News:*

Equality Step Taken by Osteopaths

Osteopaths opened a drive to obtain standing for nature healers, Christian Science practitioners, chiropractors, and osteopaths equal to that of physicians at yesterday's session of the California Osteopaths' Association annual convention in Pasadena.

Dr. Glen C. Cayler, chairman of the Association's Legislative Committee, said all labor and other groups would be asked to coöperate in a three-point program which the Association plans to carry to voters by Initiative measures.

The program includes changing the Workmen's Compensation Act to enable employees to choose nature healers, Christian Science practitioners, and others, to attend them, opening of county hospitals to pay patients, and redefinition of the terms "physicians" and "surgeons" by law to include all healing practitioners.

The Association will also consider campaigning for a compulsory health insurance, to be administered by a board composed of all those in the healing profession.

* * *

Osteopaths Plan Drive

Delegates Aim Blow at "Selfish Attacks" of Organized Medicine

Pasadena, June 23. (Exclusive).—Plans for a State-wide campaign by osteopaths, naturopaths, and chiropractors against asserted "selfish attacks by organized medicine" were announced today at the California Osteopathic Association's convention.

Dr. Glen D. Cayler of Los Angeles was cheered by the delegates after he declared that as soon as California groups with "common interests" band together "true medical freedom" for the United States will be won.

Program Outlined

The speaker, chairman of the Osteopaths' Legislative Committee, won support for the following three-point program:

1. Passage of an amendment to the Workmen's Compensation Act, giving all injured employees the right to select any physician.

2. Passage of an amendment to the State Medical Practice Act that will give doctors of osteopathy holding physicians' and surgeons' certificates complete equality under the law with doctors of medicine.

Plea for Hospitals

3. Open county hospitals for admission of "pay" patients with free choice of physicians, or establish compulsory health insurance to include salary groups below $1,500, giving free choice of physician, and setting up a board of all interested professions.

Doctor Cayler asserted that if this three-point program is not inaugurated soon, osteopaths and others with like interests are planning to carry the fight to the people by referendum.

Pending Bills Cited

"While organized medicine has pilloried us at every turn," he said, "we have gone about our business. But the time for docility is past. The freedom of a man to place his life in the hands of a physician of his choice will otherwise be stifled.

"Awaiting Governor Merriam's signature are three bills that eventually will give medical doctors alone the right to treat patients. We must push this joint counter-attack with full vigor, for organized medicine has ruled, governed and unceasingly belittled those outside its realm!"

* * *

From the Los Angeles *Examiner:*

Osteopaths War on Medical Codes

Pasadena, June 23.—A three-point fight for legislative recognition will be voted on tomorrow by the California Osteopathic Association as it takes up the report of a legislative committee headed by Dr. Glen D. Cayler.

Under the proposal naturopaths, chiropractors, and Christian Science practitioners would be invited to join the osteopaths in a "war" against medical associations. The plan is as follows:

1. To obtain an amendment to the State Medical Practice Act that will define "physician and surgeon" in such manner that a doctor of osteopathy, holding a physician and surgeon certificate, will be eligible under the provisions of any of the California codes.

Compensation Act

2. Coöperating with all interested groups in an amendment to the Workmen's Compensation Act to give the employee free choice of his physician.

3. Coöperating with farm bureaus, labor groups, teachers' organizations, and others, toward opening county hospitals to pay patients with free choice of physician, or establishing a compulsory health insurance law to include the lower income salary groups (up to $1,500 annually) giving free choice of physician and providing an administrative board of representatives of all interested professions.

* * *

From the Pasadena *Star News* (June 23):

Medical Act Amendment Sought

"War of Freedom" Is Launched

California's long-smoldering flames of threatened warfare, with medical associations on one side engaging in bitter battle with a large coöperative army of osteopathic physicians, naturopaths, Christian Science practitioners, and chiropractors, burst forth today when Dr. Glen D. Cayler of Los Angeles, Chairman of the Legislative Committee, asked six hundred delegates attending the California Osteopathic Association convention to accept immediately and "pursue militantly and aggressively" the Committee's three-point plan of "battle for medical freedom" and then simultaneously broadcast a State-wide appeal for help from all groups interested.

The convention, in its third day in session in the Vista del Arroyo Hotel, thus commenced a "war" that will rage from one end of the State to another, with every prospect of spreading nationally since other states are almost certain to follow California's lead, it was said. The three-point plan is:

Three Points Listed

1. To pass an amendment to the State Medical Practice Act that will define "physician and surgeon" in such manner that a doctor of osteopathy holding a physician and surgeon certificate will be eligible under the provisions of any of the California Codes, regardless of the provisions in the code.

2. Coöperating with all interested groups in an amendment to the Workmen's Compensation Act giving the employee free choice of physician.

3. Coöperating with the farm bureaus, labor groups, teachers' organizations, and others, toward opening county hospitals to pay patients with free choice of physician, or establishing a compulsory health insurance law to include the lower income salary group only (up to $1,500 annually) giving free choice of physician and providing an administrative board of representatives of all interested professions.

Appeal to People

Doctor Cayler, in explaining the purpose of the proposals, followed the reading of the concrete points by emphatically declaring to the hushed audience that if the program was lost that the committee proposed carrying their fight to the people by an initiative referendum. Then the convention floor broke into wild cheering.

Doctor Cayler said that the program was mapped because organized medicine had ruled, governed and unceasingly attacked those outside its realms. While no mention was made by the chairman of State Senate Bills 781, 782, 783, the consensus of the delegates was that the passage of these bills at what was said to be a "jammed" session of the recent California Legislature in Sacramento, hastened the declaration of "war." These bills are on Governor Frank F. Merriam's desk awaiting action.

As amendments to the State Medical Practice Act the bills allow injunction powers to be used against alleged violators of the Act upon filing of a complaint by either the Medical or Osteopathic Board of Examiners. Opponents of the bill have flooded the Governor's desk with telegrams and letters urging his veto, claiming the bills gave the Board autocratic, dictatorial and unwarranted powers. Moreover, they claim, that with such bills made laws that it would eventually mean no one but medical doctors could practice in the State of California. And these medical doctors would be members of various medical associations of societies, to which other professions are not admitted.

The delegates were asked to defer their vote until late today to enable them to study carefully the three proposals.

* For editorial comment, see page 3.

PACIFIC COAST ABORTION RING

San Francisco, California,
May 18, 1937.

Re: Pacific Coast Abortion Ring

To the Editor:

Enclosed please find California Appellate Decisions, May 4, 1937, wherein is printed an important decision in the case of *People* vs. *R. L. Rankin,* from which you will note that a new trial has been granted to James Beggs, M.D., Valentine St. John, M.D., and Jesse C. Ross, M.D., whereas William A. Byrne has been denied a new trial.

You will note that the decision is based on two interesting points:

1. That a conviction cannot be sustained upon the testimony of an accomplice.

2. That Count No. 7 of the indictment of William A. Byrne did not state that the woman involved was *pregnant* and hence this count was dismissed.

Effective September 15, 1935, Section 274 of the Penal Code was amended by striking out the reference to pregnancy, hence if the indictment had been brought after September 15, 1935, such a judgment of the Appellate Court would not have been possible.

We believe the enclosed opinion is worthy of publication in California and Western Medicine.

Very truly yours,
C. B. Pinkham, M.D.,
Secretary-Treasurer, State Board of Medical Examiners.

* * *

(Note: The Decision to which Doctor Pinkham refers is printed below.)

* * *

COURT'S DECISION

CALIFORNIA APPELLATE DECISIONS

Crim. No. 2943. Second Appellate District, Division Two. April 23, 1937

The People of the State of California, Plaintiff and Respondent, vs. R. L. Rankin, George E. Watts, John A. Creeth, J. O. Shinn, William A. Byrne, Valentine St. John, H. L. Houston, Bessie McCarthy, Grace Moore, Lillian Wilson, Jessie Radcliffe, James Beggs, Beatrice Bole, Jesse C. Ross, Violette Pellegrini, W. Norman Powers and J. D. Perry, Defendants; R. L. Rankin, William A. Byrne, Valentine St. John, James Beggs, and Jesse C. Ross, Appellants.

[1] Criminal Law—Abortion—Accomplice—Corroboration.—A conviction cannot be sustained upon the testimony of an accomplice, unless it be corroborated by other evidence which tends to connect defendant with the commission of the offense charged in the indictment, and the corroborative evidence necessary to comply with this requirement must of itself without the aid of the accomplice's testimony connect or tend to connect defendant with the commission of the offense charged; and in this prosecution for violation of Section 274 of the Penal Code, where the record was completely devoid of any evidence, even slight, which tended to connect appellants with the crimes of which they were convicted, after eliminating the testimony of accomplices, the necessary corroboration was lacking.

[2] Id.—Abortion—Pleading.—In such prosecution, in order to state a public offense arising from the violation of Section 274 of the Penal Code, it was necessary to allege that the abortion was committed upon a woman that was pregnant.

[3] Id.—Statutes—Words and Phrases.—In such prosecution, the contention that the words "procure the miscarriage of such woman" as used in Section 274 of the Penal Code did not convey a definite and certain meaning and was, therefore, unconstitutional, was without merit.

Appeal by defendants from judgments of the Superior Court of Los Angeles County, Arthur Crum, Judge, of conviction of a conspiracy to violate Section 274 of the Penal Code and from orders denying motions for new trial. Affirmed and reversed with directions.

For Appellant R. L. Rankin—Rosecrans & Emme, Bayard R. Rountree.

For Appellant Byrne—R. E. Parsons, Jerome O. Hughes.

For Appellant Valentine St. John—Charles A. Thomasset.

For Appellant James Beggs—Clarence W. Hull; Sherman & Sherman, by Clarence W. Hull.

For Appellant Jesse C. Ross—Abe Richman.

For Respondent—U. S. Webb, Attorney-General, by Bayard Rhone, Deputy Attorney-General; Buron Fitts, District Attorney, Los Angeles County, by V. L. Ferguson, Deputy District Attorney.

Defendants were accused by the grand jury of the county of Los Angeles of the crime of conspiracy to violate Section 274 of the Penal Code, a felony, and in eight separate counts of having committed abortions. Defendants were tried jointly before a jury, whose verdicts were:

(1) Guilty:
Counts I, II, V, VII, and IX—R. L. Rankin, George E. Watts, J. O. Shinn, William A. Byrne, Grace Moore, Lillian Wilson, James Beggs, Jesse C. Ross.
Counts I and V—John A. Creeth, Valentine St. John.
Counts I, II, and V—Violette Pellegrini.

(2) Not guilty:
All counts—Jessie Radcliffe, J. C. Perry.

Defendants H. L. Houston, Bessie McCarthy, and Beatrice Bole were not apprehended and defendant W. Norman Powers entered a plea of guilty to Count I of the indictment and testified on behalf of the State.

Defendants James Beggs, William A. Byrne, R. L. Rankin, Jesse C. Ross, and Valentine St. John alone appeal from the judgments and orders denying their motions for a new trial.

The appeal of defendant R. L. Rankin has heretofore been dismissed at his request.

Viewing the evidence most favorable to the prosecution (*People* vs. *Dukes,* 90 Cal. App. 657, 659), the facts in the instant case are:

Defendants R. L. Rankin and George E. Watts owned, operated, and directed a series of offices, extending from Seattle, Washington, to San Diego, California, for the purpose of illegally performing abortions. The remaining defendants, with the exception of those who were acquitted by the jury, were employed by them in various capacities in connection with the conduct of their illegal business. In the course of their business, and in pursuance of their conspiracy, abortions were performed upon Gladys Duckworth, Peggy Nowell, and Josephine Peacock, as alleged in Counts II, V, and IX of the indictment.

A

[1] Each appellant urges reversal of the judgments on the ground *that there is no substantial corroboration of the testimony of his accomplices to show his participation in or connection with any of the crimes of which he was convicted.*

The law is settled in California that a conviction cannot be sustained upon the testimony of an accomplice, unless it be corroborated by other evidence which tends to connect defendant with the commission of the offense charged in the indictment (Section 1111, Penal Code), and it is equally clear that the corroborative evidence necessary to comply with this requirement must of itself, without the aid of the accomplice's testimony, connect or tend to connect defendant with the commission of the offense charged. (*People* vs. *Kempley,* 205 Cal. 441, 455; *People* vs. *Janssen,* 74 Cal. App. 402, 406; *People* vs. *Rokes,* 88 Cal. App. Dec. 317, 318.)

Applying the foregoing rules to the instant case, we find, with reference to the appellants Beggs, Ross, and St. John, that, after eliminating entirely the testimony of their accomplices, the record is completely devoid of any evidence, even slight, which connects or tends to connect any of them with any of the crimes of which they were convicted. Since the judgments as to these appellants must be reversed for the foregoing reason, it is unnecessary for us to consider the other contentions which they have advanced.

With reference to appellant William A. Byrne, we find a different situation. An examination of the record discloses that, after eliminating the testimony of his accomplices, there was substantial evidence considered in connection with such inferences as the jury may have reasonably drawn therefrom to connect him with the commission of the offense charged, thus furnishing the necessary corroboration to the testimony of his accomplices. One example of such corroborative evidence is found in the testimony of Geraldine Gerding, secretary to the manager of the Ocean Center Building in Long Beach, who it is conceded was not an accomplice, to the effect that appellant Byrne, about July 29, 1936, paid rent for rooms used by some of his coconspirators in that city for the purpose of performing abortions. There is ample evidence of a similar nature; however, since no useful purpose would be subserved by setting the same forth in extenso, we refrain from further discussion of it. (*Thatch* vs. *Livingston,* 13 Cal. App. [2d] 202, 56 Pac. [2d] 549; *Koberle* vs. *Hotchkiss,* 8 Cal. App. [2d] 634, 48 Pac. [2d] 104; *Leavens* vs. *Pinkham & McKevitt,* 164 Cal. 242, 245, 128 Pac. 399.)

B

Appellant Byrne relies for reversal of the judgments upon these additional propositions:

[2] *First: Count II of the indictment did not charge a public offense.*

Second: Section 274 of the Penal Code is unconstitutional in that it fails to inform a person charged thereunder with reasonable certainty as to what acts or actions are prohibited by it.

Appellant Byrne's first proposition is valid. On April 29, 1935, Section 274 of the Penal Code read as follows:

"274. Administering Drugs, etc., With Intent to Produce Miscarriage. Every person who provides, supplies, or administers to any *pregnant* woman, or procures any *such* woman to take any medicine, drug, or substance, or uses or employs any instrument or other means whatever, with intent thereby to procure the miscarriage of such woman, unless the same is necessary to preserve her life, is punishable by imprisonment in the state prison not less than two nor more than five years." (Italics added.)

Count VII of the indictment read as follows:

"Count VII

"For a further and separate cause of action, being a different offense of the same class of crimes and offenses as the charges set forth in Counts II, III, IV, and V hereof, and connected in its commission with the charge set forth in Count I hereof, the said defendants, R. L. Rankin, George E. Watts, John A. Creeth, G. O. Shinn, William A. Byrne, Valentine St. John, H. L. Houston, Bessie McCarthy, Grace Cole, Lilian Wilson, Jessie Radcliffe, James Beggs, Beatrice Bole, Jesse C. Ross, Violette Pellegrini, W. Norman Powers and J. C. Perry, are accused by the Grand Jury of the County of Los Angeles, State of California, by this indictment, of the crime of abortion, a felony, committed prior to the finding of this indictment, and as follows:

"On or about the 29th day of April, 1935, at and in the County of Los Angeles, State of California, the said defendants, R. L. Rankin, George E. Watts, John A. Creeth, G. O. Shinn, William A. Byrne, Valentine St. John, H. L. Houston, Bessie McCarthy, Grace Cole, Lillian Wilson, Jessie Radcliffe, James Beggs, Beatrice Bole, Jesse C. Ross, Violette Pellegrini, W. Norman Powers and J. C. Perry, did provide, supply, administer, procure, use and employ an instrument upon the person of one Dorothy Woods, a woman, with the willful, unlawful and felonious intent then and there and thereby to procure the miscarriage of the said Dorothy Woods, said use and employment of said instrument to procure said miscarriage of said Dorothy Woods, a woman, not then and there being necessary to preserve the life of the said Dorothy Woods."

It is to be noted that the Penal Code section above quoted prohibited the aborting of a *"pregnant"* woman, unless the same was necessary to preserve her life. Count VII of the indictment, which attempts to charge the defendants with the commission of an abortion upon Dorothy Woods, failed to allege that she was "pregnant." Under Section 274 of the Penal Code, as it read April 29, 1935, it was incumbent upon the people to allege and prove that the woman upon whom the abortion was performed was pregnant. (*People* vs. *DeVaughan*, 105 Cal. App. 516, 518.) Therefore Count VII was fatally defective in this respect and failed to state a public offense.

[3] Appellant Byrne's final proposition is untenable. His entire argument is directed to the point that the words "procure the miscarriage of such woman" do not convey a definite and certain meaning. "Miscarriage" is thus defined in Bouvier's Law Dictionary, Volume II, page 2221:

"The expulsion of the ovum or embryo from the uterus within the first six weeks after conception. Between that time, and before the expiration of the sixth month, when the child may possibly live, it is termed abortion. When the delivery takes place soon after the sixth month, it is denominated premature labor. But the criminal act of destroying the fetus at any time before birth is termed, in law, 'procuring miscarriage.' "

An almost identical definition will be found in Cyclopedic Law Dictionary, page 662, and substantially the same definition is given in each of the modern dictionaries of the English language. It is, therefore, evident that the phrase as used in the statute was sufficiently explicit to inform persons of common intelligence and understanding of the acts which were prohibited.

The judgments and orders denying the motions for a new trial relative to appellants James Beggs, Jesse C. Ross, and Valentine St. John are and each is reversed, and a new trial is ordered.

The judgments and orders relative to William A. Byrne on Counts I, II, V, and IX are and each is affirmed, and the judgment and order on Count VII as to this appellant are and each is reversed.

McCOMB, J.

We concur:

CRAIL, P. J.

WOOD, J.

DEPARTMENT OF PUBLIC HEALTH: BUREAU OF REGISTRATION OF NURSES—ANNUAL REPORT*

In addition to the general office work, interviews, and inspections of schools of nursing during the past year, the chief project of the Bureau of Registration of Nurses has been the completion of the revision of the three-year curriculum. This revision has extended over a period of two years because of its comprehensive nature. Three meetings, each year, of the Advisory Committee have been devoted to this problem. All recommendations made by this committee concerning minimum requirements for ward practice and class work have been adopted by the California State Board of Public Health. The plan, in general, provides for a preliminary period of four to six months, depending upon whether or not the prenursing course is required for admission. The main part of the course is devoted to the services included in the former twenty-eight months' course with the addition of experience in the nursing care of communicable diseases or tuberculosis. Instead of the "advanced" courses formerly given, four to six months are now devoted to special services, the experience being given at the time deemed most suitable, rather than at the end of the course. Visiting nursing, outpatient clinics, psychiatric, and orthopedic nursing have proved popular. For this three-year curriculum, the minimum amount of class work in schools admitting students without a college prenursing course is 780 hours. In addition to these recommendations, the California State Board of Public Health has also adopted a regulation that a minimum of forty-four hours a week must be devoted to the class work, conferences, and ward practice of this course. Information concerning these changes in curriculum has been sent to the schools in the form of news bulletins, and plans are being made to issue a printed booklet in the early fall.

During the session of the legislature which has recently adjourned, four bills relating to the work of the Bureau were introduced. Two of these were "codified" bills. At the previous session of the legislature, a code commission was appointed for the purpose of compiling existing laws in similar form. The registration act and act for the training of attendants which have been passed are, therefore, the same in actual content as before. Copies of the registration act in its new form will be published in the early summer. A third bill was introduced by the Finance Department. It provides for the use of $15,000 of the Nurses' Registration Fund to pay for office space in a new building to be erected by the Department of Vocational Standards. This will make it possible for the Bureau to have additional office space, which is badly needed. The fourth bill provided for the exemption of schools of nursing, connected with medical colleges, from several requirements of the registration act. This bill was withdrawn before a committee meeting was held.

The usual three State Board examinations have been conducted. After the July examination, a comprehensive analysis was prepared and sent to each school of nursing in place of the usual meeting for discussing the questions. Meetings were held in Sacramento, San Francisco, and Los Angeles after the November and March examinations. An analysis of each examination was also published in the *Pacific Coast Journal of Nursing*. Following the March examination, a detailed study was made of all applicants graduating from California schools of nursing who were taking the examination for the first time. Graphs were then prepared showing the highest and lowest score of each school, as well as the mean. These graphs were sent to the schools in order that each one might compare its scores with those of other schools in the State. The mean of each school for each subject was also calculated. Mimeographed sheets were then prepared, showing the range from the highest to the lowest grade. These were also sent to each school with its grades indicated. This was a time-consuming piece of work, but proved to be very worth while because this type of comparison has proved more beneficial to the schools than one making possible only the

* Report for the period, June 1, 1936 to June 1, 1937. By Helen F. Hansen, R.N., Chief, Bureau of Registration of Nurses.

Report given at the convention of California State Nurses' Association.

comparison of the school mean with that of the whole group.

The schools appearing in the highest 25 per cent, namely, Mercy College (Sacramento), Queen of Angels, St. Francis, Bishop Johnson College, Knapp College, St. Vincents, and San Diego County, showed far less divergence in grade than did those appearing in the lowest quarter. The highest grade in each subject was obtained by a school in this upper group, with the exception of surgical nursing, in which the highest grade was obtained by Mercy College of Nursing, San Diego.

The number of nurses from other states registering in California continues to be very heavy. During the last calendar year, this number was the highest in the history of the Bureau, reaching 1541. It appears that this number will be greatly exceeded during the present calendar year, as 1,148 certificates have already been issued since the first of January. Renewals are also continuing to be very heavy, with over eight hundred having been issued so far this year than for all of last year. This increase in volume of work has proved to be a great strain on the Bureau, and efforts are being made to obtain additional personnel to assist with it. With this increase in renewals and registration, there has been a corresponding increase in income. The revenue for the fiscal year which will close June 30 is estimated at about $47,000, with expenditures of about $24,500.

Studies of the teaching of medical nursing and special diets have been continued. Because of the fact that there has been no permanent inspector in the southern part of the State for the greater part of the year, this work is still in progress. Individual reports have been sent to each school, and general summaries with recommendations will be prepared upon its completion. The inspector in the northern part of the State has spent the greater part of the year in connection with this work, taking care of some of the southern schools also. Whenever possible, classes in the service being studied have been visited in each school. This has required several visits for each report, as well as a great deal of time in compilation, because of its detailed nature. In all, there have been made thirty-six class visits, twenty-seven studies of facilities for teaching special diets, and three for the teaching of medical nursing. Five inspections of other services have also been made.

There has been a decided increase in the number of requests for talks at high schools and colleges. It has not always been possible to fill all of these requests because of the heavy demands of the offices. The Los Angeles and San Francisco offices have taken care of 1,239 office interviews during the year. Both inspectors have attended as many meetings of nursing organizations as their itineraries would permit. The inspector in the northern part of the State has also acted as chairman of the Program Committee for the convention of the California State Nurses' Association.

The Chief of the Bureau has made seventy-three hospital visits during the last year. This has been slightly less than for the previous year because of the great increase in office interviews and applications. Only six visits have been made to colleges for this same reason. Frequent office hours have been held in Los Angeles and San Francisco, as well as at Sacramento. During this period, 958 individuals have been interviewed. Meetings of nursing organizations have been attended in San Francisco, Los Angeles, and Sacramento, as well as meetings of the Board of Directors of the California State Nurses Association, Sacramento County Nurses' Association, and the California League of Nursing Education. Assistance has also been given with the founding of the "Northern Valley League of Nursing Education" to promote greater interest in this work in Sacramento and Stockton.

Plans for the next year include more visits to junior and state colleges and a comprehensive study of the health program in schools of nursing, as well as the teaching of pediatric nursing. . . .

The clerical personnel in the three offices has continued, without exception, to give devoted service to the Bureau. Both the San Francisco and Los Angeles offices have been able to assist with typing and mimeographing for the Sacramento office because of the reduction in number of studies in schools of nursing.

The Chief of the Bureau has felt very fortunate during the difficulties of the past year to have had the loyal assistance of the whole Bureau personnel as well as the readiness of the director of the Department and the chairman of the Nursing Committee to share in the carrying of the many responsibilities.

MEDICAL ISSUES IN GREAT BRITAIN

The annual meeting of the British Medical Association commences July 16. In preparation for this meeting, the annual report of the Council appears in the supplement to the *British Medical Journal* for April 24.

The subjects treated and the attitudes taken show a close similarity to those that are interesting members of the medical profession in the United States. There has been a steady increase in the development of public medical services, until the number now in operation is sixty. This is a form of voluntary insurance supplementary to the compulsory plan and at least partially controlled by the British Medical Association. It is confined to persons with incomes approximately between $1,200 and $2,500 per annum.

There is conflict between the representatives of the Ministry of Health and the Association as to the scale of fees for physicians called in by midwives under the Midwives Act, and the meeting is asked to support the higher schedule of fees proposed by the Council.

INSURANCE CAPITATION FEE

"For several years," says the Council, "there has been a growing feeling that the capitation fee of 9s. awarded by a Court of Enquiry in 1924 has become inadequate for the services which an insurance practitioner is called on to give to an insured person. During the past twelve years there has been a substantial increase in the volume of work and in the content of the service. The 1936 Annual Conference of Local Medical and Panel Committees instructed the Insurance Acts Committee to proceed in the matter and, when the preparation of the case to be submitted on behalf of insurance practitioners had reached an advanced stage, a formal application was submitted to the Ministry of Health. The Minister, himself, then met a deputation from the Committee. He intimated that, in his view, a flat rate substantially below the present figure could well be justified. At the same time he agreed that, both sides holding opposite views, the question was one which could best be settled by arbitration and he undertook to make the necessary arrangements. . . ."

Parliament is now considering the extension of insurance to "employed juveniles between school-leaving age and sixteen years." The Ministry is trying to set the capitation fee for such workers lower than that for adults. "At a Special Conference of Local Medical and Panel Committees called for January 7, 1937, the following resolutions were passed unanimously, and subsequently transmitted to the Ministry of Health:

"That the offer of the Minister of health of a capitation fee of 7s. 6d for medical attendance on insured persons under sixteen years of age be rejected.

"That this Conference recommends insurance practitioners to decline service for the provision of medical benefit for insured workers under sixteen years of age at the terms offered by the Minister of Health.

"That in view of the inadequacy of the existing capitation fee, and pending the result of negotiations for its increase, this Conference is not prepared to accept for attendance on insured workers under sixteen years of age a capitation fee less than that which is paid for adult insured workers.

"That the Insurance Acts Committee be authorized to take action in the light of the decisions reached by the Conference."

DUTIES AND ETHICS OF INDUSTRIAL MEDICAL PRACTICE

The Council, in an appendix to its report, sets out the following list of duties which may properly be undertaken by industrial medical officers, when so required:

"1. Examination of applicants for employment and advice as to their selection.

"2. Immediate treatment of medical and surgical emergencies occurring at the place of employment.

"3. Examination of persons returning to work after illness or incapacity.

"4. Periodic examination of persons exposed to special hazards.

"5. Responsibility for the efficiency of the nursing and first-aid personnel and equipment.

"6. Advice to the management regarding:

"(*a*) The hygience of the factory.

"(*b*) The health conditions of the workers.

"(*c*) The occurrence and risk of dangerous hazards.

"(*d*) The accident-prevention arrangements.

"(*e*) Factory legislation concerning health and safety and the special diseases to which the particular industry exposes any worker.

"(7) Maintenance of close touch with the management with a view to insuring that conditions are such as to produce the highest degree of mental and physical welfare of the workers.

"8. Continued observation of all young persons with recommendation where necessary for the provision of free meals or milk.

"9. Continued observation of all persons returning to work after prolonged illness.

"10. The medical supervision of canteens to insure the cleanliness, good quality, and physiological adequacy of the food.

"11. Advice to the works councils, welfare departments, benevolent fund committees, etc., on any matter affecting the health of the workers.

"12. The arranging and carrying out of such educational work in respect of the health and fitness of the workers as may be desirable and practicable.

"13. Ready accessibility to employees for medical advice on matters relating to their work.

"14. Encouragement of supervisors to report signs of ill health in any of their workers.

"15. Advice to the management regarding fire and air raid precautions."

What is essentially a special ethical code to secure the enforcement of the regulations as to duties is also recommended. Some of the more significant sections of this code follow:

"1. The industrial medical officer shall render such emergency or first-aid treatment as is required at the place of employment and shall inform the worker's own doctor of any treatment given. Where further treatment is deemed necessary, the worker shall be instructed to consult his own practitioner.

"2. Where there are special facilities or equipment and suitable transport arrangements are available, if it is in the interests of the patient, continuing treatment may be given at the factory clinic with the consent of, and in consultation with, the worker's own practitioner. . . .

"4. The industrial medical officer shall not provide treatment in cases of disability, save in such instances as may be covered by an understanding with a committee representative of the local medical profession or where there is an *ad hoc* agreement with the worker's own practitioner. Such treatment shall be given only with the consent of the worker.

"5. The industrial medical officer shall consider and advise on the occupation of any worker whose duties appear to be too heavy or otherwise unsuitable, and where necessary he shall consult the worker's own doctor.

"6. The industrial medical officer shall, after communication with the worker's medical attendant, (*a*) examine and advise concerning those workers engaged in hazardous or arduous occupations; also those about to be transferred to heavy or dangerous occupations; and (*b*) examine and report to the works management on those workers who appear suitable for early pension or retirement or in regard to the continuance of invalidity payments.

"7. The industrial medical officer shall not carry out domiciliary treatment.

"8. A whole-time industrial medical officer shall not treat any member of the worker's family who is not employed at the factory.

"9. A part-time industrial medical officer shall not utilize his position to influence the worker to choose him as medical attendant or family doctor.

"10. The industrial medical officer shall not, except in an emergency, or where a prior understanding with the local practitioners is in operation, send any employee direct to the hospital. Where he considers attendance at the hospital to be necessary or advisable, he shall refer the employee to his own medical attendant and may make a suggestion to this effect to the latter.

"Where, in an emergency, the industrial medical officer sends a worker to hospital, he shall advise: (*a*) the relatives (if the patient is detained); and (*b*) the worker's medical attendant. . . .

"12. The industrial medical officer should, where possible, respond to any invitation to meet the worker's practitioner in consultation.

"13. Except in emergency, the industrial medical officer shall not carry out any individual preventive measure without the individual consent of the worker, and prior agreement with the worker's medical attendant. He shall in no way associate himself with experiments which involve the active participation of the workers without their consent and the prior notification of the worker's doctor.

"14. The medical records of the workers maintained by the industrial medical officer are confidential documents; they must remain in the custody of the industrial medical officer or of his deputy. Access to them must not be allowed to any other person save only to another registered medical practitioner and then only at the request or with the consent of the worker."—*Journal of the American Medical Association*, June 5, 1937.

COUNTY HOSPITALS: THEIR ADMISSION SCOPE*

By G. W. Walker, M.D.
Fresno

This subject was suggested to me as proper for consideration—a change possibly desirable of achievement, to prevent worse legislation by taking the wind out of the sails, so to speak, of the proponents of something far more vicious. If we admit that it is vicious, but simply less vicious than something else, that is one thing; but if we hope to have it enacted as a piece of constructive legislation, that is another.

Being a physician, I am more accustomed to consider professional subjects. The title of this paper was given to me ready-made. Please bear with me if I seem ambitious to discuss government policies. The title dictates it. Some years ago, at a medical meeting, one of the prominent members of our profession, wishing to be politic but also desirous of "putting over" a proposition making a radical change, took the floor several times to speak for his idea, always preceding his remarks with, "Now, I am entirely neutral in this matter," when he would launch into a discussion on the side he strongly favored. After numerous such passages, Dr. John Graves got upon his feet and said, "I am just as neutral as my esteemed friend, only I am neutral on the other side." Like Doctor Graves, consideration of the evidence on this subject makes me strongly one-sided.

REACTION TO DOLES

Experience teaches that whenever public funds are offered to assist people, a request soon changes to a demand, and that doles, to the extent that they are doles, lead to moral deterioration. What is given to a group as a concession soon is considered by them to be their inherent right, and is always looked upon as too little, after which turmoil follows over drives to get more.

A committee of the California State Senate two years ago investigated widely the cause of the high taxation we have, and which is mounting, and the possibility of reducing it. A staggering deficit faced them. A member of that committee talked to a civic body and told us of their conclusion, that taxes mount because government is doing so much more all the time for the governed. Whenever a suggestion for elimination of something was made, a vigorous protest was promptly made by the group receiving that State service; and instead of any reduction being possible, overwhelming demands were continually being made to

*Opening county or other tax-supported hospitals to non-indigent patients of limited means for part pay under the supervision of their private physician. A discussion.

extend services already in existence—a group, at a time, demanding special favors for itself.

A British economist, Sir George Paish, recently stated that at the present trend the world is going bankrupt, for it is simply spending more than it is making. Nationally, and in the subdivisions, we are doing so. Such bankruptcy leads toward too high-tax levels, confiscation, repudiation, economic chaos, loss of confidence in government, and general peril.

America was developed to its enviable position on lower taxation, and more self-reliance than the present trend. While it always cared for the indigent, those who received State aid were judged to have fallen off the bottom rung of the social ladder, so less of it was formerly requested. But increased State aid makes a different psychology, and a disregard for self-respect and self-reliance. Let us not be a party to a plan to help those who can better help themselves.

COUNTY OR CHARITY HOSPITALS

Our County Medical Association at one time asked the Board of Supervisors to change the name of our General Hospital to the County Charity Hospital. There was an organization known as the Unemployed League which promptly intervened, as they did not want any such stigma. They demanded that it must *not* be evident that when they went to the County Hospital they were recipients of charity.

If the State gives part of the hospital care for nothing to groups able to take care of themselves, soon they will ask that it be entirely free, and next that they receive their medical care for nothing. Then would loom the question of how much their means must be limited for such admission. There would be agitation for extension of limits—note the frequently made statement of the agitators that they expect to get one concession, then another, added to the Old Age Security Law, until unlimited State medicine and hospitalization are obtained. In passing, we might ask well-intentioned advocates of Old Age Security legislation if bearable taxation and reasonable hope for future stability in government are not requisites of first importance, even ahead of collections and disbursements?

PAYMENT MAKES FOR SELF-RESPECT

A more healthful situation exists when people earn and pay their own way rather than expect the government to care, or even partly care for them. I quote a hospital administrator, Richardson,[1] who says: "The average person would like to pay his own bills. Unfortunately there has always been an element—and that element is perhaps increasing—which is quite willing to let someone else assume responsibility. Certainly, people should be taught and urged constantly to assume the responsibility of their own medical service, including hospital accommodations, just so far as it is possible for them to do so."

In large centers, endowed hospitals have their charity wards and patients who pay their own way; some paying part because of limited means, but in that the ultimate dictator of policy is a private board which can make its decisions unhampered by political wire-pulling. The ultimate control of tax-supported institutions is by a board depending for their tenure upon popular vote. Popular support is best kept by keeping down turmoil, by giving a too vigorous contender what he wants, even though it is more than can be given to the whole public.

AMERICAN PLAN OF HOSPITALIZATION

To quote Richardson[1] again: "It is much more than a coincidence that the American plan of hospitalization has grown up to be the most extensive and the most efficient possessed by any country in the world. In this country there are quite a number of splendidly built and wonderfully equipped public institutions, but unfortunately the administration of some of these hospitals is very much hampered and harmed by the fact that they are publicly owned hospitals. Economically, it is wiser to subsidize some private institution for the care of the indigent sick suffering from acute surgical and medical conditions. It would be too bad to see the State largely assume the responsibility.

SHALL THE HOSPITAL SET-UP BE RECAST?

"To recast the whole general hospital program, to meet a desire on the part of some people to throw all the burden on the city or State, would be most unfortunate, not only from an economic standpoint, but also because the quality of service would sooner or later deterioriate." In most lines private institutions are more flexible than public ones in meeting individual requirements.

To get something for a patient of the private hospital, one can telephone and have every reasonable request granted. Only rarely do we fail to arrange the exact details we want—possibly an operating hour not precisely to suit—but this is only rarely.

Is there need for this change? Is there a possibility that a staggering hospital bill may overwhelm a person of limited means at an unexpected moment, and no way to fend it off? No, there is a practical and easily possible way of preventing that—arranged by the hospitals. There are now established over a large part of the country, including California, and growing everywhere rapidly, well-arranged hospitalization insurance plans. For an amount equal to less than the cost of half-dozen packages of cigarettes per month, hospital service insurance can be gotten that will give the patient free access to the hospital of his choice.

Shall tax grants provide the tobacco at limited cost to those of limited means? The economic burden of tobacco cost is heavier than that of hospitalization. Page the Foundations! Get relief for us!

HOSPITALIZATION INSURANCE

People of such circumstances that they could be ruined by the hospital bill in an unpredictable acute medical or surgical condition should be taught by propaganda, advertising or popular talks, and every practical means, that there is now such an insurance plan in existence. About one person in fifteen per year goes to the hospital. Fire loss does not happen nearly so often, yet fire insurance is nearly universal. Therefore, hospitalization, being more nearly predictable than fire loss, insurance against it should be popularized. Let us encourage that instead of tax-supported hospitalization extension.

Just as a house cannot be insured after a fire starts, so hospitalization insurance cannot be gotten after one is sick. This insurance plan involves no new taxes. It is cheaper than care by the State, even after crippling taxation has built more hospitals at public expense, to duplicate the private hospitals already built. The province of Ontario built a publicly owned electric generating system, costing $150,000,000, but finds since that it can buy current from neighboring privately owned plants much cheaper.

Black[2] of Oakland has given most ample reasons against this change. I cannot easily quote from his paper, read to this organization last year, for it is so good I would need to quote his article verbatim; but I can advise you, if it is hazy in your mind now after a year's rush of other things, to get a copy and read it again. It tells the whole story most clearly. Goodale,[3] commending a financial plan to pay the doctor, and a hospitalization insurance plan such as mentioned above, says: "Under such an arrangement there is no necessity for trick medical service legislation, far-fetched, intricate administrative and control plans, and a legion of bureaucratic lay flunkies."

California Supreme Court Decision

The decision of California's highest court makes a very liberal interpretation of indigency, in relation to admission to the County Hospital. It admits all indigents and near indigents. It admits without cost all those of such limited means that a hospital bill might wreck them financially, where they get not only their hospital but their medical attention at no cost. Admission of the next higher bracket for limited pay would enable anyone who could succeed in persuading those in charge of admission that he was not well-to-do, to get, for limited pay, a service which the self-reliant had to pay for in full. That would develop a class skillful in establishing as a fact that they are very poor,

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1 Richardson, D. L.: J. Am. Hosp. A., 10:36-38 (Nov.), 1936.

2 Black, Benjamin W.: J. Am. Hosp. A., 10:38-40 (June), 1936.

3 Goodale, Walter S.: J. Am. Hosp. A., 36:779-783 (April), 1936.

whether true or not, and the ever increasing number of those of elastic conscience would succeed in getting a limited-means rating, and hospitalization for limited pay, or, as Black[2] has shown, usually for little or no pay. They would resort to political wire-pulling, if need be.

What will happen if the State and its subdivisions widen the scope of admission and accept those of limited means for limited pay? The limits would not be narrow and take them away from the private and church hospitals, unsupported as they are by taxation. They could not compete, and would go down to financial destruction. Their destruction would confiscate the investment that has already been made. Surely, we have enough financial disaster now without setting up machinery to make more, and at a heavy increase of tax outlay. Under the sacred name of education, we stand for anything in taxation to increase the opportunities of our children. So to care for the sick and the needy we have always given freely to the tax gatherer. But there should be a line of demarcation between wise and unwise steps taken.

To be sure, all things are comparative, and there could be worse legislation than opening county hospitals to private patients of limited means, to be attended by their own private physician; that is, by having them attended by the State if that remained the limit. If the State wishes to be fatherly but still desires to use the best business methods, it should step in and take charge of the income of those it deems unfit to look out for themselves, to take enough out of each purse to buy a policy of hospital insurance, to insure their care in a place where it can be well done without cost to the State, without the possibility of politics interfering, in a private hospital. But State compulsion takes away liberty to a degree that no one wants. Let us hope that the patient of limited means will always be a private patient in both his hospital and medical care.

Medical attention is not the subject under discussion just now, but hospital and medical attention are much intertwined. Many of us believe that medical attention would soon be included if such change were made. Hired staffs would be next. Then the group to be pitied would not be the doctors, but the patients.

There is a much overworked statement extant that only the very poor and very wealthy can get hospital and medical attention. Let us inquire about that statement a little critically. While it is a fact that misfortune often overwhelms the provident through no fault of their own, the improvident do overflow the ranks of those of limited means. The provident make much more effort to accumulate, and are more careful not to dissipate what they do acquire. What they have they care for better than do the improvident, so they give their health better care, just as they take better care of their automobile, their growing crops, or anything else they possess. I think that fact greatly explains the statement made by the paid workers for the foundations in recent years, that those of limited means do not get as much hospital and medical attention as they should; but is that not just in keeping with improvidence in other matters? They simply do not take steps to get that service which is universally provided. You can put the water before the horse, but you cannot make him drink.

A story is told of a man extolling the virtues of modern methods of relief. In his enthusiasm he insisted that it was better than all previous plans; better than the plan of Jesus Christ. At that he was halted by someone who could not go all the way with him, but he maintained that Christ only said, "Come unto Me and I will give you bread," but popular plans now say, "Sit where you are and we will bring it to you." That is apt to exhaust the section of our population that has to carry it to them.

Everything has already been done but to take this hospital and medical care to the non-indigent; but there the line should be drawn. Let him make some move, insure himself, or otherwise provide his own hospitalization. Let the government take care of the indigent,and provide isolation hospitals for contagions, continue to be liberal as they now are with the tuberculous, insane, and chronic cases. Let those who are not indigent provide their own hospital care in private institutions already built. They will like it better, appreciate it more, and consider it a privilege—not just a right to be demanded.

In private hospitals some will occupy expensive rooms, some will take cheap ones—some of these from necessity, others from thrift, though they can afford the expense of costlier rooms. The self-reliant often like to keep the reason for selecting a low-priced thing their own secret. Let us encourage more self-reliance, not less.

A recent trend is to create a federal fund, participation in which can be gotten by a state supinely passing a law of prescribed pattern. Then the separate states feel helpless, as their neighbors are helping themselves to the fund, and the only way to participate is to fall in line whether they like it or not. Our legislative workers have done well in combating evil legislation before legislative bodies—amazingly well. But let us not rest content with successes there. If so, soon the medical profession will be called big bullies in politics. People do not like big bullies. They band together and destroy them. But we have right on our side. Let us go to every grange, labor, or other meeting that will hear us, and show them wherein their interests lie. Sinister organizations have furnished nearly all the propaganda they have heard. They will listen to their doctors. We can win with the voter, but we must act and not let the misguided theorist do all the talking. These preach that tax-supported schools are a success and that state medicine would be a similar success. I presume they think we can take patients in big classes, not individually, for diagnosis and treatment, just like school classes. That would be so simple! Let us show the voter the fallacy of the theories of the propagandists, to whom they have been listening for a long time without enough interruption.

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HELP FOR FIVE HUNDRED CRIPPLED CHILDREN IN CALIFORNIA

During a period of seven months. from September 1, 1936, to March 31, 1937, five hundred and two patients were examined in nine diagnostic clinics held in eight California counties under provisions of the Crippled Children's Program administered by the California State Department of Public Health. Counties in which the State Department of Public Health held diagnostic clinics for crippled children with certified orthopedic surgeons as clinicians during this period are Glenn, Yuba, Sutter, Butte, Sonoma, Solano, Contra Costa, and Colusa. Two clinics were held in one county—Butte.

Adequate records were made and kept of every child admitted to the clinic. These records consisted of identifying information, which enabled the physician to obtain some understanding of the family situation. Information regarding the past medical history and previous medical treatment was obtained. Clinical findings and recommendations for care were recorded. All records are on file at the office of the Crippled Children's Bureau. Two copies of records are kept at the office of the Crippled Children's Bureau. Copies are sent to the local public health nurse responsible for the care of the individual patient and the examining orthopedic surgeon. If hospitalization is recommended, such authorization is approved of by the Chairman of the Professional Advisory Committee and Director of the Department of Public Health and sent to the local public health nurse, the orthopedic surgeon, and the accountant for the Social Security Act.

As the program has developed, photographs of children have been included in the records. The department plans to have on file photographs of all physical defects found in children examined during these clinics. These will be supplemented by photographs taken following surgical treatment and illustrate corrections accomplished through orthopedic and plastic surgery. The use of motion pictures has been inaugurated during the last two clinics and is to be continued for all crippling defects that can be demonstrated through this medium.

With only one exception, a representative from the Bureal of Vocational Rehabilitation attended the diagnostic clinics. At each clinic he interviewed patients referred to him and gave consultations service for patients under sixteen years of age, the age at which this Bureau will accept patients for training. Not only was the clinical record of the patient available to him, but very often he discussed the patient's physical condition in terms of vocational adjustment with the orthopedic surgeon.

The source material for this discussion is based on information obtained from the patient's records. However,

statistical information regarding the diagnostic clinics is limited by the fact that it does not include all patients who sought the services provided. In the majority of the clinics held, a considerable number were not examined because conditions for which they requested care were outside the scope of the clinic. It was likewise not feasible, for the purpose of this discussion, to present a tabulation of diagnoses. Despite this limitation, the discussion does present an interesting summary of facts related to the Crippled Children's Program in California.

A compilation of statistical material shows that the largest number of patients attending a single clinic was in Sutter County, where eighty-one individuals were examined. The smallest number examined was in Yuba County, where thirty-three were examined. The average attendance during these diagnostic clinics was fifty-six.

Although the general population of the county is not strictly comparable with clinic attendance because of the factor of age in the general population, it is interesting to note that when such proportions are derived, the counties with the smaller population between ten thousand and fifteen thousand, that is, Glenn, Yuba, Sutter, and Colusa, had a larger percentage of their population at clinic. In this same manner, the larger counties had a smaller percentage at clinic. In the case of Contra Costa County this may be due to its proximity to San Francisco. The question of clinic organization and epidemiological factors in each individual county must be considered, but it is reasonable to presume that the need for clinic services provided was greater in the smaller rural counties.

Following the medical examination, the surgeon spent considerable time with the parents, or the patient if an adult, in explaining clinical findings and recommendations for care. Thus, not only were the services of orthopedic specialists made available to patients far removed from the larger urban centers, but their recommendations were interpreted and understood by the family before leaving the clinic.

A study of the 502 patients examined shows that they are almost evenly divided as to sex, 48 per cent being females and 52 per cent males.

Table 1 shows the number and per cent of the children examined in the eight counties, according to age groupings.

When these patients are classified by age groups as shown in Table 1, the largest single number of eighty-eight are found in the adolescent period of fourteen to fifteen years. This represents 17.5 per cent of the total number examined. The largest concentration of patients, nearly 71 per cent of the total number examined, was from eight to seventeen years. This might indicate that patients requiring care were more easily located when the patients were attending school or that the disease conditions occurred more frequently during these ages. Eleven and two-tenths per cent of the total patients were under six years of age, half of them being under four years of age. Almost as many, or 8.1 per cent, of the total patients were eighteen years or over. This might suggest that these disease conditions had existed over a period of years or that children who had previously been surgically treated were reporting back for further orthopedic supervision. The latter was true for children who have previously been cared for under the California Crippled Children's Act, which has been in operation since 1927.

TABLE 1.—*Number and Per Cent of Patients Examined in Nine Diagnostic Clinics Held in Eight California Counties Classed by Age Groups*

Age Groups	Number of Children	Per Cent
All ages	502	100.0
Under 2	9	1.8
2 to 3	19	3.8
4 to 5	28	5.6
6 to 7	50	9.9
8 to 9	67	13.3
10 to 11	59	11.8
12 to 13	77	15.4
14 to 15	88	17.5
16 to 17	64	12.6
18 to 19	29	5.8
20 and over	12	2.3

TABLE 2.—*Number and Per Cent Distribution of Causative Factors Related to the Present Physical Condition of 502 Patients Examined in Nine Diagnostic Clinics*

Causative Factors	Number of Causative Factors	Per Cent Distribution
Accident	103	18.4
Congenital	313	55.9
Disease	144	25.7
Total	560	100.0

General causative factors related to the present physical condition of the patient were recorded. A tabulation of these data is shown in Table 2.

While 502 patients were examined in diagnostic clinics, the total number of causative factors, as shown in Table 2, is 560. This is influenced by the fact that in the cases of fifty-eight patients there was more than one defect. Likewise, in some instances, the causative factors were so closely interrelated that it was necessary to record several causes.

Table 2 shows that 18.4 per cent of the causative factors involved were accidental, and 25.7 per cent disease. The largest number of disease conditions was due to poliomyelitis.

It is significant to note that over half of the causative factors recorded were due to congenital defects. This group includes not only orthopedic defects, but cases of ophthalmiatrical, neurological, and orthodonture origin. The large proportion of congenital defects would suggest that they had existed over a considerable length of time and the family had been unable to provide necessary medical care. Provision for the correction of congenital defects, as well as other defects through the California Program for Crippled Children has been an effective means of ameliorating both physical and emotional disturbances. Experience has shown that the majority of children with physical defects continually combat an increasing sense of inadequacy, which reacts on not only the well-being of the individual, but also that of his family. The correction meets a vital need in the life and full development of the patient.

Table 3 shows the recommendations and per cent of recommendations made by orthopedic surgeons examining 502 patients during nine diagnostic clinics.

While 502 children were examined, no recommendations were made for 50 or nearly 10 per cent of the total children examined. This does not necessarily mean that no disease condition existed for this group, but that no further care was indicated at the time of the diagnostic clinic examination by the orthopedic surgeons. Five hundred and fifty-six recommendations were made for 452 patients. Thus, for many patients there was more than one recommendation for medical care.

When these recommendations are classified according to the type of medical care required, as shown in Table 3, it is found that 71.4 per cent of the total recommendations were for orthopedic care. It is interesting to note that although the clinical services provided were those of orthopedic surgeons, over one-fourth of the total recommendations or 28.6 per cent represented recommendations for non-orthopedic conditions. The largest number of these

TABLE 3.—*Classification of Recommendations Made by Orthopedic Surgeons Examining 502 Patients by Number and Per Cent**

Orthopedic Surgeons' Recommendations	Number of Recommendations	Per Cent Distribution
Orthopedic	397	71.4
Oculist	70	12.6
Orthodontist	40	7.3
Other specialist	48	8.7
Institution	1	....
Total	556	100.0

* No recommendations were made in the cases of fifty children.

TABLE 4.—*Number and Per Cent of Orthopedic Recommendations Which Orthopedic Surgeons Made for 397 Patients*

Recommendations for Orthopedic Care	Number of Recommendations	Per Cent Distribution
Supervision	42	10.6
Surgery (orthopedic and plastic)	118	29.7
X-ray	29	7.3
Plaster cast	13	3.3
Appliance	74	18.6
Exercise	69	17.4
Referral to Clinic	20	5.1
Referral to Private Physician	26	6.5
Referral to Hospital	6	1.5
Total	397	100.0

recommendations or 12.6 per cent were for the services of an ophthalmologist. Almost as many received recommendations of an orthodontic nature as required the services of other specialists.

Table 4 shows the type of orthopedic recommendations which examining surgeons made for 397 children.

As shown in Table 4, almost one-third of the total orthopedic recommendations or 29.7 per cent was made for surgery which represents both orthopedic and plastic surgery. Ten per cent of the total recommendations was for continued orthopedic supervision. Almost as many recommendations were made for corrective exercises as for appliances. In the group for appliances are included corrective shoes.

Only 13.1 per cent of the total children for whom orthopedic recommendations were made was referred back to the clinic, private physician, or hospital previously attended. Almost as many had been under the care of a private physician as of a clinic. These figures might indicate either that the majority of the children examined were not under medical supervision or that the service required was that in a specialized field.

Although the services of the orthopedic surgeons are made available through the Crippled Children's Program, its method of reaching those requiring these services is in a large measure dependent upon the coöperation extended by local health, educational and social agencies, the schools, service clubs, private philanthropic societies, and other community and State organizations who assist in case finding service during the time the clinic is in progress, transportation of patients, lunches for patients, follow-up, and many other services which interested organizations are able to provide to the crippled patient in the local community.

The fact that recommendations were made for 90 per cent of the patients examined signifies not only the important contribution of the diagnostic clinic in meeting the needs of these patients in various California counties, but the necessity of following through the recommendations of the physician so that, in the end, medical care is not only conserved but made more truly effective.

In the final analysis, the end-results of provisions made available through the Crippled Children's Program will be directly related to the whole-hearted and enthusiastic coöperation of related agencies, organizations, and individuals. Their interest and service may assist the crippled patient to achieve the best possible physical, mental, and vocational adjustment.

CORONER SYSTEM: A PROPOSED MEDICAL EXAMINER SYSTEM FOR MICHIGAN

In 1877 Massachusetts abolished the office of coroner and replaced it with the office of medical examiner. The law authorized two full-time, salaried medical examiners for Suffolk County, in which Boston is situated, and in each of the other counties as many part-time examiners on a fee basis as the county commissioners might deem necessary. In such counties the number varies from one to eleven. The office is appointive, the term of service being seven years. Repeated reappointment of the medical examiners of Boston has resulted in a high type of medico-legal investigation not approached in any coroner jurisdiction. The success of the new system in Boston led to its adoption in New York City in 1918 and in Essex County (Newark), New Jersey, in 1927. In each of these urban centers the superiority of the medical examiner system has been amply demonstrated.

In sparsely settled rural counties the problem of the antiquated coroner's office is more difficult to solve because of the relatively small amount of work to be done. In Massachusetts, outside of Suffolk County, the medical examiner system is an improvement over the coroner system, but still leaves much to be desired. With modern transportation facilities there is no necessity for from one to eleven medical examiners per county. In rural regions the consolidation of two or more adjoining counties into a medical examiner district under a single examiner might induce competent young physicians to enter the field of medico-legal pathology.

On March 29 a bill abolishing the coroner's office and setting up an examiner system was introduced into the legislature of Michigan. The essential features of the title of this bill are:

> A bill relative to investigations in certain instances of the causes of death within this state due to violence, negligence or other act or omission of a criminal nature; to provide for the taking of statements from injured persons under certain circumstances; to abolish the office of coroner, and to transfer the powers and duties to a state medical examiner and to county medical examiners; to create the office of state medical examiner, and provide for county medical examiners and assistants, and to prescribe their powers and duties. . . .

The state medical examiner, who has no counterpart in the coroner system of any state, in addition to qualifications as to residence, profession and licensure, shall "possess special training in pathology and the investigation of violent deaths." He "is authorized to incur such . . . expenses and employ such assistants as shall be necessary in carrying out the provisions of this act." A reasonable appropriation for this provision would assure the organization and maintenance of a central medico-legal laboratory or institute, which would serve the entire state through the county medical examiners. This would be the most enlightened step in this field thus far taken in this country and would go far in the development of a system of scientific medico-legal investigation. It is further provided that the state medical examiner shall supervise the county examiners, shall consult and advise with them, and may perform the duties of any county examiner who may be negligent in the performance of his work.

For each county there is to be a county medical examiner appointed for a term of three years by the board of supervisors with the approval of the state medical examiner. The county examiner must be a resident of the county for which he is appointed, or of an adjoining county. The latter provision makes it possible for a single examiner to serve two adjoining counties. This is a step toward desirable functional consolidation. The board of supervisors may also appoint, with the approval of the state medical examiner, such deputy county medical examiners as may be necessary. This would insure the proper performance of the work of populous counties. The state medical examiner may recommend to the county board of supervisors the removal of any county examiner or deputy who may fail to perform his duties properly.

County medical examiners are authorized to make the necessary examinations of the bodies of such persons "as are supposed to have come to their death by violence; without medical attendance up to a time thirty-six hours prior to the hour of death; abortion, whether self-induced or otherwise; or in case any prisoner in any county or city jail shall die while so imprisoned." The county examiner is the sole judge of the necessity for postmortem examination in such cases. He may retain, for so long as may be necessary, such parts of the body as may be necessary for the detection of crime. On written order of the prosecuting attorney or attorney-general or on petition of six electors of the county, the county medical examiner may investigate the death of any person whose death is believed to have occurred in the county. No dead body may be cremated without the consent of the county medical examiner. The latter official is authorized to take the statement of "any person who has been injured by the criminal act, omission or negligence of another, and there is reason to believe that death is impending."

One of the worst features of the coroner system is the coroner's jury, as such juries are usually constituted. The Michigan act does not require a jury, but makes the calling of a jury optional with the county medical examiner. The latter may issue summons; failure of attendance is subject to penalty. If it appears that death was due to the unlawful act of another, the county medical examiner shall submit his conclusions and those of the jury, if one was called, to the prosecuting attorney. Any and all medical examiners may be required to testify in behalf of the state.

In a measure so enlightened as this, it is a matter of regret to note one seriously undesirable feature. The bill provides that the state medical examiner is to be appointed by the governor for a term of four years. This carries with it the potentiality of making the medical examiner system a part of a state political machine. The terms of governor and state medical examiner should not coincide. If appointment is made by the governor, the term of the state medical examiner should be seven years, as in Massachusetts. It is to be hoped that this feature will be amended and that the measure will become a law. To Michigan would then belong the credit of being the first state to devise a state-wide agency for the scientific investigation of deaths of which government must take official cognizance.—*Journal of the American Medical Association.*

RABIES: AN ALL-YEAR HAZARD*

"Dog days," according to a dictionary definition, is a term used to describe "the sultry, close part of summer when dogs are supposed to be specially liable to go mad." It will be news, therefore, to the average person that actually fewer animals go mad in summer than during any other season of the year. This conclusion is indisputable. It is based on reports of the prevalence of rabies in animals for six years, as supplied to the United States Public Health Service by approximately one-half of the states.

Spring, for which period the six-year daily average of cases of rabid animals was 12.2, is the season when the disease is most prevalent. There is very little difference, however, between the incidence of rabies in the spring and during the cold months of winter, when the daily average is 11.7. During the summer, which includes the "dog days," the average falls to 8.2. In other words, only two animals become rabid in summer to every three in the spring, and only seven during the hot summer months to every ten during the winter.

The chief lesson to be learned from these figures, however, is the necessity for systematic, 100 per cent muzzling of dogs at all seasons of the year. Many instances are on record of more or less determined opposition to the enforcement of dog-muzzling laws and ordinances during the cold months. Such resistance doubtless has its foundation in the impression that rabies is a warm-weather disease in both animals and human beings. The facts, as just stated, show beyond contradiction that this impression is a mistaken one, so far as the seasonal incidence of this dread disease in animals is concerned.

With respect to human rabies, the situation differs only slightly from that described for animals. While it is true that a few more human cases are reported for July and August than at other seasons, the margin of difference is slight. In fact, the Public Health Service records show that for every five cases of human rabies in both July and August there are four cases in January, May, and October. The slightly larger number of these "dog days" cases in human beings is probably due, in part, to the fact that the length of the incubation period in man, while variable, averages from six weeks to two months. It is thus to be expected that the heaviest incidence of animal rabies, which occurs in the spring, will be followed by the maximum prevalence of human rabies in the summer months. Another point to be reckoned with is that the late spring and summer are the periods of greatest out-of-doors exposure to dog bites. This applies especially to children, with whom incubation is usually of shorter duration than in adults, and who, accordingly, are more apt to develop rabies soon after being bitten.

Since rabies is an all-year-round disease, both as to source of infection from animals and occurrence in man, the importance of rigid enforcement of dog-muzzling laws and of gathering in stray dogs at all seasons is apparent. When the disease is once established in a human being it is hopelessly incurable. No method of treatment has yet been discovered which, at that stage, is of the slightest avail. The only protection against rabies lies in its prevention by means of the Pasteur prophylactic treatment. This should be administered as soon as possible after a dog bite, whether the animal be merely suspected of being mad or is known to be so. Fortunately, the treatment gives a practically 100 per cent protection. Conclusive evidence of its efficacy is afforded by the fact that in 6,156 cases treated at the Pasteur Institute in Paris in the ten-year period 1924 to 1933 only a single death occurred.—*Statistical Bulletin, Metropolitan Life Insurance Company,* May, 1937.

* A rabies quarantine is now being enforced in the city of Los Angeles.

THE PLAGUE SITUATION*

It is now just forty years since the present pandemic of plague began with the appearance of an epidemic in Hong Kong, and it is just thirty-four years since it reached California. Arriving in India from Hong Kong, it found favorable conditions and soon after 1900 the deaths reached a million per year. Even now, after nearly forty years of continuous activity, the deaths from plague in India are occurring at the rate of three to four thousand per week. Considered in the light of the known history of plague, there is nothing unusual in these facts, nor is there in the length of time it has been continuously present in California any ground for believing that it is dying out and will shortly disappear. It is characteristic of plague that its period is very slow, and the rise and fall of epidemics is measured in decades and centuries. Upon its appearance in a country it is sometimes years before its presence is manifested by any great mortality, and in the subsidence of a pandemic its final disappearance is interrupted by sporadic localized outbreaks. The long range periodicity of plague, as well as its persistence, is well shown in the history of plague in England, where it finally disappeared in 1680 after its almost continuous presence for 136 years. The Great Plague of London occurred in 1665 with about 70,000 deaths, but there had been, previous to that time and within the 136-year period, five epidemics of from 10,000 to 35,000 deaths at intervals of thirty, ten, twenty-two, eleven, and thirty years.

The following, quoted from Procopius of Caesarea in his History of the Persian Wars, describing the pandemic of the sixth century, which is the first authentic historical pandemic, is interesting in its parallelism with more modern appearances. "It arose in Egypt with the inhabitants of Pelusium, then dividing spread one way through Alexandria and the rest of Egypt, the other into Palestine which borders on Egypt, and then traveled over the world, always advancing with a progress marked by certain definite spaces of time. For it seemed to advance by a certain law and to demand a certain space of time in every country, discharging its venom against no one on the way casually, but spreading on this side and on that to the uttermost ends of the world as if it feared lest incautiously it should pass by any corner or recess upon earth. It spared neither island nor cave nor mountain top where man dwelt. If it passed over any place only slightly or mildly touching the inhabitants, it returned there afterward, leaving untouched the neighbors against whom it had spent its rage before, and it did not depart from there before it made up the full measure of the dead in proportion to the amount of destruction which it had brought on its neighbors. Always beginning at the sea coast, it spread into the interior. In the second year it reached Byzantium about the middle of the spring where, as it happened, I was staying."

The great epidemics of ancient times seem to have been of the bubonic form, although it must be remembered that historical accounts of plagues include all epidemic disease, typhus, smallpox, etc., as well as plague, and it is only the description of buboes by some of the writers that identify bubonic plague. Pneumonic plague might have occurred, but for authentic accounts of pneumonic plague epidemics we have only comparatively small outbreaks in recent years in Manchuria, in limited districts of India, and on a still smaller scale in California. There are, however, references seeming to indicate that pneumonic plague accompanied

* By W. H. Kellogg, M.D., Chief, Division of Laboratories, California State Board of Health.

some of the bubonic outbreaks and, therefore, doubtless occurred alone.

Guy de Chauliac, in his description of the plague at Avignon, which was part of the second historical pandemic in the fourteenth century says: "The plague commenced with us in January; it continued seven months during which time it appeared in two forms. During the first two months it was accompanied with a continuous fever and with a coughing of blood. All who were attacked died in three days. During the other months the continuous fever was accompanied with tumors and boils, which appeared in the external parts of the body, chiefly in the arm pits and in the groin. Those who were thus attacked died in five days."

With illness of the individual, the prognosis is of great interest and importance to him. So also with the commonwealth, when plague is endemic a prognosis is of interest. Reviewing the past history of the disease, an attempt may be made to predict what the future has in store for California and for the rest of the nation. It soon develops, however, that about the only thing that is certain about plague is the uncertainty of its disappearance and that usually about a century is required for it to finally flicker out. This is the history of human epidemics. But how about the endemic foci, where plague lies dormant during the intervals between epidemic or pandemic spread? The natural reservoir of plague is in wild rodents of squirrel or ground-hog type, and the historical foci are districts in Arabia along the Red Sea, in Mesopotamia, in Thibet, in Yunnan in China, and in Uganda in Africa. More recently endemic foci have been established in Manchuria, from which point the pneumonic epidemics of 1910 and 1916 originated, and in California where the native rodent concerned is the ground squirrel, Citellus beechii. The rat, as a carrier of plague, seems to be subject to the rise and fall of epidemics the same as his human associate. When plague disappears from a human population, it leaves the rat population also, but the enzoötic does not exactly coincide with the epidemic. It usually precedes it and is likely to linger longer. The source of human bubonic outbreaks is the rat, and the source of rat plague is, doubtless, contact with wild rodents in some endemic focus. The primary source of plague, therefore, is the wild native rodent and the distributor is the rat who travels in ships and visits all lands. The rat occasionally returns the infection to wild rodents in some new locality, thus establishing a new endemic focus. This happened in California shortly after the introduction of plague into San Francisco about 1900,* and presumably the point of contact was in the vicinity of the Port Costa warehouses. At any rate, squirrel plague was first found in that vicinity, and the enzoötic soon reached large proportions.

The record of plague in California is briefly as follows:

March, 1900. Bubonic plague appeared in San Francisco, principally in the Chinese colony, and a total of 121 cases, with 113 deaths, occurred over a period of four years.

May, 1907. Bubonic plague again appeared in San Francisco. The total number of cases in this outbreak over a period of six months was 160 and the deaths 78. This time not confined to Chinatown, but scattered over the whole city.

August, 1908. Plague proved to be present among the ground squirrels of Contra Costa County.

May, 1907, to December, 1918. Sporadic cases of human plague to the number of 11 with five deaths occurred in the counties of Alameda, Contra Costa, San Benito, Santa Clara, San Joaquin, and Stanislaus. Squirrel plague found to be present in the same counties as well as in Fresno, Monterey, San Luis Obispo, Santa Cruz, San Mateo, Merced, and San Francisco.

August, 1919. An outbreak of pneumonic plague in Oakland, which consisted of 13 cases with 12 deaths.

1919 to 1924, inclusive. Six sporadic cases with two deaths occurred in Alameda, Monterey, San Benito, and Santa Cruz counties.

October, 1924. An outbreak of pneumonic plague in Los Angeles, with 32 cases and 30 deaths.

November, 1924. Five cases of bubonic plague with three deaths in Los Angeles County.

1925 to 1933. Seven sporadic cases with five deaths in the counties of Los Angeles, Santa Cruz, Monterey, and Santa Barbara.

1934.† One human case in Tulare County. Also a large epizoötic among ground squirrels of Tulare and Kern counties, over two hundred positive specimens being found among those sent to the laboratory. Furthermore, an epizoötic was discovered among the ground squirrels of Modoc County in the northeastern corner of the State on the eastern side of the Sierra.

This chronology of plague in California shows that we have had two bubonic epidemics, the first in San Francisco from 1900 to 1904, and the second in San Francisco and Oakland in 1907 and 1908. We have had two pneumonic epidemics, the first in Oakland in 1919, and the second in Los Angeles in 1924. We have had in all thirty-five sporadic cases with nineteen deaths, mostly in rural districts and of squirrel origin, nine counties being represented. Squirrel plague has been found in seventeen counties.

The plague situation on the west coast is of interest to health authorities throughout the country, as will be appreciated by a consideration of what the possible answer is to certain questions which immediately present themselves. These questions are: First, what is the probability of plague dying out before long? Second, what is the significance of ground-squirrel infection? Third, is plague in California a menace to other states? The answer to the first question is written in the history of plague, and from the brief references to that history already quoted in this paper it may be suspected that the chapter is not finished and may not be for many years to come. This is made all the more certain when it is remembered that there is every reason for believing that the historical epidemics and endemics were rat-borne and in course of time they did come to an end, whereas plague has been kept alive continuously in particular habitats where the rodent concerned was not the rat but a wild native animal such as the marmot. In these localities plague has not, so far as any one knows, ever completely disappeared. Such a focus now exists in the California ground squirrel.

In the answer to the second question we find the most disquieting aspect of the whole problem. In rat plague, pneumonia is not a common finding. Guinea pigs inoculated from rats rarely show lung involvement. In squirrel plague, pneumonia is common. Guinea pigs inoculated from squirrels very frequently present a pneumonia. The Oakland outbreak of thirteen pneumonic cases, which group, by the way, included two nurses and two doctors, was started by contact with squirrels, the first man having been squirrel hunting just before his onset. His case was primarily bubonic (axillary) with pneumonia supervening. The Los Angeles epidemic is not so easily traced to squirrels although in the rodent survey following, both rats and squirrels were found infected. There would seem, therefore, to be some ground for the theory that pneumonic plague is the result of a development of a specific organ virulence on the part of the prevailing strain of B. pestis by passage through a particular species of rodent. In this connection, Dr. Wu Lien Teh says:* "The idea that the species of rodents involved in the epizoötic might influence the character of subsequent epidemics is a very fascinating one. Especially it has to be considered if a close relation does exist between epizoötics in certain wild rodents and human outbreaks of pneumonic plague. In fact, a world-wide study of the disease both in rodents and in man, as undertaken by our staff within recent years, has yielded many data supporting this view. On the other hand, in some countries where only ordinary rats are involved the incidence of lung pest is conspicuous also. But before reaching any final conclusions the following points should be considered: (1) Though ordinary rats are sometimes found to be the original source of pneumonic outbreaks, in many instances the local rodents were not involved, the disease having been imported from outside by human agency, namely, by travelers incubating the disease. (2) How long has the disease existed in the local rats? In some plague areas with rat epizoötics, pneumonic plague was frequent soon after the introduction of infection, but became rarer afterward. One might consequently suggest that the longer

* Kellogg: Present Status of Plague, with Historical Review, *American Journal of Public Health*, November, 1920.

† Since this date, four cases of human plague have been discovered in California.

* Reports of North Manchurian Plague Prevention Service, 1927-1928.

the infection continues among ordinary rats the less chance there is for pneumonic plague to appear to man." Finally, the significance of ground-squirrel infection, leaving out of consideration any bearing it may have on the type of human plague, lies in the fact that a new endemic focus has been established and these endemic foci, constituted as they are by wild rodent infection, are so far as anyone knows at present permanent and everlasting.

The third query, "Is plague in California a menace to other states?" I would answer by saying "Yes" and for the following reasons: (*a*) Because of the possibility of direct extension of the disease in the wild rodent population across state lines. We have recently discovered plague among the ground squirrels of Modoc County, four hundred miles from the nearest previously known plague area and close to the State lines of both Oregon and Nevada. For all we know it has already crossed over into both states. (*b*) It may travel by transference to the rats in some border-line urban area, the rats traveling, as is their wont, in freight cars or ships to new and distant localities. (*c*) The last reason to be mentioned necessitates a return to the epidemiology of pneumonic plague. Teague and Barber,* as a result of their investigations in Manchuria, believe that the essential conditions for a rapid spread of pneumonic plague are a low temperature with considerable humidity, thus permitting droplets containing plague bacilli to remain suspended in the air a longer time and at the same time preserving them against the destructive influence of warmth and drying. They point out that the greatest pneumonic epidemic of modern times occurred in Manchuria in the winter of 1910-1911, when the temperature was many degrees below zero centigrade; also that in India only 2 to 5 per cent of the cases are pneumonic and no large pneumonic outbreaks have occurred there except one of 1,400 deaths in Kashmir at an elevation of about 5,000 feet and in very cold weather. If we accept the plausibility of Teague's and Barber's thesis, we must admit the possibility of some person during the incubation period of plague traveling East in the winter time. Should this traveler develop an axillary or cervical bubo with a secondary pneumonia, the stage will be set for a rapid man-to-man transfer of a form of the disease that has no rival in the rapidity of its spread and the certainty of a fatal outcome.

* Philippine *Journal of Science*, page 157, 1912.

"GOVERNMENT WILL STEP IN IF CUSTOMERS ARE DUPED"

Drug Industry Must Govern Self as Buyer—Helpless to Judge Product

Government regulation of manufacturers to give the consumer a fair break is in the offing unless industry learns to govern itself, Graham A. Laing, Professor of Economics and Business Administration, California Institute of Technology, warned yesterday afternoon at the California Pharmaceutical Association convention at the Hotel Huntington.

Professor Laing touched upon the difficulty consumers in this complex age have in determining whether or not an article is adulterated, and cited the need for business to deal honestly with customers.

BUYER AT MERCY

"In the long run," said Professor Laing, "the modern consumer must rely upon the business conscience of the producer or—and this is of great importance—upon the organized government to see that the ignorance and helplessness of the consumer is not unduly preyed upon by unscrupulous manufacturers.

"In the Middle Ages the consumer was expected to be as familiar with the product and the materials of which an article was composed as the maker. This is no longer possible. Then adulteration methods were crude and comparatively easily detected. Hence the buyer was expected to be on his guard.

"At the present time even experience is of little help. The constant changes in materials, methods, and processes is so great that one can seldom rely upon continuity of quality. The result is that the consumer nowadays can no longer depend upon his own examination, experience, and judgment. And, consequently, even the law has begun to catch up with the changed situation. The courts now consider such matters as implied warranties, and so give a certain protection to the innocent and ignorant consumer."

LEGISLATURE CRITICIZED

The so-called "horse and buggy" system under which the State Legislature functions was hit by Assemblyman James J. Boyle of Los Angeles, who criticized the election of attorneys to legislatures, expressing the opinion they tend to represent clients instead of the State.

The speaker scored the number of lobbyists and pressure groups, decrying the fact that 250 lobbyists can pull an assembly of eighty persons apart.

PRICE WAR WARNING

Charles Luckman of Chicago declared fair trade acts would not be needed if manufacturers want to coöperate with retailers in standard minimum prices. He urged delegates to coöperate with manufacturers that attempt to stabilize commodity prices, and asserted that if another price war is allowed to arise it will be more vicious than ever before witnessed.—*Pasadena Post*, June 23, 1937.

Diets of Industrial Families in North Atlantic Cities.—Economic pressure is one of the chief reasons for the small quantities of dairy products, vegetables, and fruits bought by the family of the average low-income city worker in the North Atlantic States, according to a study by the United States Bureau of Home Economics of food purchases and nutrition of 1,400 typical families in sixteen selected cities of New York State, Pennsylvania, Massachusetts, and New Hampshire. The study, based on family records kept during 1934-1936, gives information on the daily food choices and costs of these industrial families and compares their food habits with those of families spending comparable amounts for food in Southern and Pacific Coast cities.

North Atlantic families on the higher expenditure levels bought more foods rich in high-quality proteins, minerals, and vitamins, in proportion to their entire diet, than families spending comparatively little for food. Families averaging $4 per capita a week bought five times as much citrus fruit, three times as much of other fruits and leafy, green and yellow vegetables, and between two and three times as much butter, eggs, meat, poultry, and fish as families averaging $1.60 per capita a week. They bought only slightly more bread, flour, cereals, and fats other than butter.

High-grade diets, assuring good nutrition, were obtained by about 30 per cent of all the North Atlantic families. About one-half were on fair diets, and somewhat less than one-fifth on definitely poor diets. The food of three out of ten families spending less than $2.50 per capita a week failed to meet minimum requirements for good nutrition in one or more respects, shortages of calcium and vitamins A and B being most frequently found. Less than 10 per cent of the families spending more than $2.50 per capita a week were on definitely poor diets.

Each person in families spending about $1.60 per capita per week got: 4 pints of fresh milk, about one-third of a pound of butter, 3 eggs, 1.5 pounds of meat, poultry or fish; less than one pound of sugar, 2.5 pounds of ready-baked bread, rolls, or other baked goods; .5 pound of cereal, one-half pound of flour and meal, 2.3 pounds of potatoes, one-fourth of a pound of dried legumes, 1.5 pounds of other vegetables, two-thirds of a pound of citrus fruit and tomatoes, and one pound of other fruits.

But in families spending $4 per capita weekly each person got approximately 7 pints of fresh milk, three-fifths of a pound of butter, 8 eggs, 4 pounds of meat, poultry or fish, 1⅓ pounds of sugar, 3.5 pounds of bread, rolls and other baked goods, two-thirds of a pound of cereal, two-thirds of a pound of flour and meal, 3.5 pounds of potatoes, one-fourth of a pound of dried legumes, 4 pounds of other vegetables, 2.5 pounds of citrus fruits and tomatoes, and 3 pounds of other fruits.

Sixty per cent of the families in the first group, and only 4 per cent of those in the second, were on low-grade diets, probably inadequate to maintain average good health in the average person.

TWENTY-FIVE YEARS AGO†

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. X, No. 7, July, 1912

From Some Editorial Notes:

Suggestions to Authors.—A pamphlet with this title is issued by the American Medical Association and will be sent to anyone for the small sum of twenty-five cents. Every going-to-be author should provide himself with this pamphlet and read it carefully before writing his article. Many authors seem to resent the rejection of their manuscript when they really ought to apologize to the editor for sending him such slovenly or, possibly, illiterate work. If the following rules and suggestions were followed, fewer manuscripts would be rejected, a good article will be greatly increased in value, time will be saved, the editor will be able to keep his temper, and the compositor may be saved from a drunkard's grave:

Manuscripts *must* be typewritten to receive any consideration; they *should* be well spaced between the lines and with ample margins.

A carbon copy should not be submitted; the original is none too good, as a rule, and the carbon copy shows at once that another and better copy exists. If the author desires to keep a copy, he should keep the carbon copy.

Ingenuity is praiseworthy in almost anything except spelling. Dictionaries are cheap; the author should carefully correct his manuscript before sending it in. An aimless ingenuity in variegated spelling is calculated to drive nearly any "copy reader" crazy.

Exclusive publication is the rule of nearly every journal so far as known. To send the same article to two or more journals is cheating.

Do not write at all unless you have something to say and then say it as briefly as possible and stop.

Number the pages of your manuscript consecutively from first to last, and do not put slips of odd sizes in between sheets so that they can fall out, get misplaced, or in some other way give you a chance to kick at the printer for your own carelessness.

Case reports are, as a rule, maddening. They may possibly be intelligible to the author, but from the way he generally writes them up, even this is to be doubted. A case report should be as carefully written as any other portion of the article; and it should contain no unnecessary matter. Do not include negative findings; what is not stated to be abnormal is assumed to be normal.

Quotations are another source of anguish. A majority of authors will put quotation marks at the beginning of the quoted matter—and then carefully forget to put them at the end!

A "case" is a condition or instance of disease; a patient is a human being. One may operate upon a patient, but not upon a case; the patient dies or recovers; not the case.

Many illustrations are seldom necessary to elucidate the text of a properly written article. When they are necessary, they should be in the form of black and white drawings on a stiff paper, or clear, clean photographs on a glazed paper. Each should be numbered and have the name of the author on the back.

Never roll a manuscript; send it flat or folded.

Never roll or fold photographs; send them flat.

* * *

The Barany Symptom Complex.—Three years ago the name of Barany was known only to a few otologists, who were familiar with the work being done in the Politizer ear clinic. Today every neurologist and "internist" is making himself familiar with the work of this remarkable investigator. Starting with a study of the nystagmus produced by an irritation of the vestibular apparatus of the ear, brought about by the injection of cold water into the external canal, various functions of the cerebellum have been studied, until now more is known about the kinesthetic

(Continued in Front Advertising Section, Page 14)

†This column strives to mirror the work and aims of colleagues who bore the brunt of Association work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By Charles B. Pinkham, M.D.
Secretary-Treasurer

News

"Action on the Attorney-General's petition for hearing on appeal from the recent Appellate Court decision, granting three members of the asserted Coast-wide illegal operations ring new trials, is expected from the State Supreme Court within a few days. James Beggs, Valentine St. John, and Jesse Ross, convicted in 1936 on counts of conspiracy and performing illegal operations, were given new trials when the Court held there was no corroborative evidence to sustain their conviction. Deputy Attorney-General Rhone also asked for an appeal on the dismissal of one count against Wliliam A. Byrne, former special agent for the State Board of Medical Examiners. His conviction on four other counts had been sustained by the Appellate Court." (Los Angeles *Times,* May 16, 1937.) (Previous entries, July, October, December, 1936.)

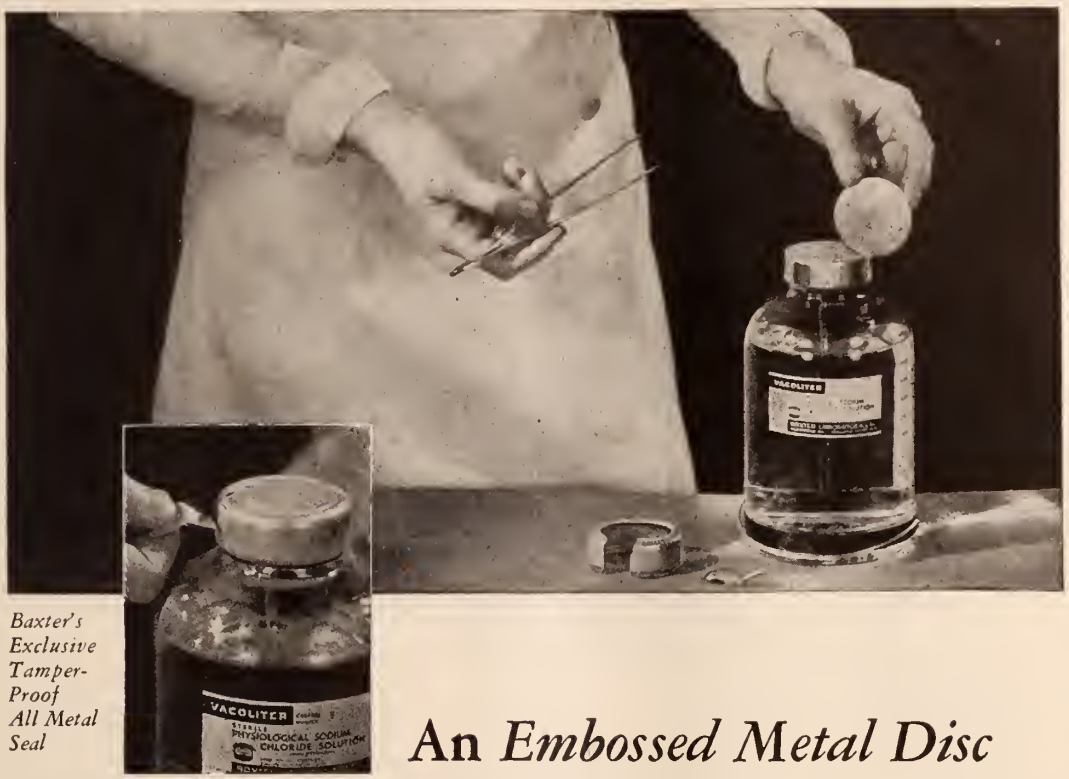
"A physician listed on the records of the Metropolitan Water District as Dr. Ralph Arthur Behrend, formerly of Manchester, Connecticut, was held in custody at the Riverside County Hospital today, after being arrested on the suspicion of theft of narcotics from the Parker Dam Emergency Field Hospital. The arrested man is not to be confused with Dr. R. Allen Behrendt of Los Angeles, who was formerly in charge of the Banning Field Hospital of the Water District, but who is now in private practice in Los Angeles, with offices at 2007 Wilshire Boulevard. First reports of the arrest recently identified the accused man as the Los Angeles physician, but this mistake was made because of the similarity in names and the further fact that the Los Angeles doctor had previously been in charge of the Banning Field Hospital, which the accused man was supervising at the time of his arrest. The Connecticut doctor had succeeded the Los Angeles doctor on the Banning Hospital job. The Parker Dam Field Hospital and the Banning Hospital are separate institutions, both operated by the Metropolitan Water District. . . . The arrested man . . . was graduated from Yale and is a native of Connecticut. . . . During the latter part of last week, according to authorities, the Connecticut doctor, allegedly suffering from the effects of narcotic addiction, went to the Parker Dam Hospital, obtained supplies of narcotics stored there and returned to Banning, where he was arrested. He was taken to the Riverside County Hospital, reportedly in a serious condition, while arraignment on the theft charge was held in abeyance. . . ." (Los Angeles *Herald and Express,* May 24, 1937.)

"Dr. Charles O. Long, Phoenix, Arizona, physician, today lost an appeal to the United States Circuit Court of Appeals on a conviction for violation of the Harrison Narcotics Act. Doctor Long was sentenced to eighteen months in a federal penitentiary for violation of the Act, which exacts a jail sentence for sale of narcotics." (United Press dispatch, dated San Francisco, June 7, and printed in the Los Angeles *Daily News,* June 8, 1937.)

"Dr. Claude C. Long and his wife, Isabel, today pleaded 'not guilty' to murder charges in Superior Judge Frank T. Deasy's court. Trial was set for July 9. The couple were held responsible for the death of Mrs. Genevieve Arganbright, wife of Perry Arganbright of 4621 Lincoln Way, following an alleged illegal operation. The operation was reported performed in Doctor Long's flat at 1679 Haight Street, where Mrs. Arganbright's body was found May 19 by an undertaker's assistant. A coroner's inquest revealed death resulted from an illegal operation. Assistant Dis-

(Continued in Front Advertising Section, Page 17)

†The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.



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An *Embossed Metal Disc* Tells You What's in *Every* Vacoliter

Every Vacoliter of Baxter's Solutions has an identification disc . . . an integral part of the Vacoliter All Metal Tamper-proof Seal. No matter if the paper label is washed off, there is no doubt as to exactly what Solution you are about to use.

Every component part of Baxter's Tamper-proof Seal is coordinated to make it easy for you to use Baxter's . . . and safe for your patient to receive them. The tamper-proof seal, the rubber diaphragm, with its visible proof of vacuum; the rubber stopper that can't come out or be pushed into the Vacoliter . . . all these play definite and distinctive parts in proving to an ever-growing list of Baxter users that intravenous therapy can be uncomplicated, safe and inexpensive.

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have caused heavy losses and much worry to both industry and workers, but the "Sit-Downers" (those who do not pay you) shown on your ledgers are the ones causing you the greatest loss and worry. Let your Bureau of competent "Negotiators" collect your money and convert the Sit-Downers into "Stand-Uppers," "Come-Backers," and "Prompt-Payers."

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PATIENTS WITH COSMETIC PROBLEMS!

▶ PHYSICIANS FORMULA Non-Allergic COSMETICS will help you in the solution of these problems. We desire to confer and coöperate with the medical profession, and will make up special formulae to meet your particular requirements.

▶ In Los Angeles at Horton and Converse Pharmacies.

PHYSICIANS FORMULA COSMETICS
2006 Wilshire Blvd., Los Angeles *Telephone* EXposition 2121

Pure Food Authorities Destroy Unfit Seafood.—Seizure during April of large shipments of seafoods because of decomposition, filth, or parasitic worm infestation, was reported recently by the Federal Food and Drug Administration. The greatest number of seizures was of fresh crabmeat contaminated, during packing, with filth and bacteria.

A total of 3,340 pounds of the crabmeat was seized in metropolitan areas of the Atlantic seaboard. Canned shrimp, the bulk of which is now packed under supervision of the Administration, was found partially decomposed in only one shipment of ten cases, from an uninspected plant.

Other canned fish seized because of decomposition were 810 cases of salmon and 550 of tuna. Parasitic worm infestation accounted for the seizure of 66,000 pounds of herring and 1,200 pounds of Canadian whitefish; and 11,120 pounds of frozen whiting, when found to be decomposed were confiscated.

Also rounded up were 9,340 shipping cases of raisins contaminated with hydrocyanic acid gas as a result of emergency fumigation during the maritime strike on the Pacific Coast. With the reëstablishment of normal operations in the shipping industry, says the Food and Drug Administration, the danger to the consumer from poisons of this sort has been eliminated.

Another poisonous adulteration resulting from carelessness caused the seizure of 47,900 pounds of rice. The sacked rice had been stored on ship in contact with containers of lead chromate, which sifted out and penetrated the sacks.

"Insect Infestation, Decomposition, and Dirt"

Insect infestation, decomposition, and dirt caused the following seizures: 173 cases of eggs that had failed to hatch during incubation; 480 pounds of partially decomposed frozen eggs; 22 cases of canned huckleberries and

FRANKLIN
HOSPITAL

Limited General Hospital with accommodations for 220 patients located in a seven-acre park, Fourtenth and Noe Streets, San Francisco.

Fully approved by the American College of Surgeons and the American Medical Association for Interne Training, and maintaining an Accredited School of Nursing.

Founded 1852

The Franklin Hospital is offering hospitalization on a periodic payment plan, with the patient having free choice of physician.

WALTER V. ROHLFFS, Ph. D.
President

LeROY BROOKS, M. D.
Chief of Staff

FRANK SCHMIDT
Superintendent

720 pounds of frozen huckleberries, both wormy; 298 crates of decomposed oranges; 300 pounds of wormy and rancid pecan meats; 225 pounds of dried peaches and 250 pounds of dried prunes, insect infested; 94 cases of canned prunes and 49 of cherries, partially decomposed; 174 cases of canned beets infected with black rot.

Twenty-three cases of tomato catsup containing mouse hairs; 104 cases of tomato puree containing worm particles, and 509 cases of catsup with worm particles and short weight; 1,625 cases of tomato puree and 20 of tomato paste, made from moldy fruit; 553 cans of tomato paste likewise made from moldy fruit, and also not concentrated sufficiently to warrant the designation "paste." Several lots of tomato puree, totaling 270 cases, were also seized because of insufficient concentration.

Seizures for failure to label substandard canned foods with the prescribed substandard legend involved 287 cases of canned cherries, 37 of peaches, and 3,321 of peas. Incorrect grade designations brought seizure of 470 bushels of apples and 1,050 sacks of potatoes.

The remainder of food seizures during April involved 1,400 pounds of stock feed containing less protein than claimed on its label; 150 gallons of a salad oil (soy-bean oil and cottonseed oil) bearing misleading Italian wording implying the product was olive oil, and 68 gallons of a so-called "olive oil" found to be sesame seed oil, artificially flavored; 1,092 pails of honey, short weight; 264 cans of a so-called "blended sorghum syrup" containing 54 per cent glucose; and 406 bottles of "orange," "lemon," and "lime" "mixers," consisting of water, citrus oils, acid, and artificial color.

Drug Items Seized

Drug items seized during the month were 296 packages of absorbent cotton and 876 of gauze bandages, not sterile as labeled; 1,343 cans of impure anesthetic ether; 177 bottles of an isopropyl alcohol solution sold as rubbing alcohol unqualified; two consignments of glandular preparations which did not exhibit the physiological activity claimed on the labels; and the following items removed from the market because of the false and fraudulent curative claims noted:

For Acidity and Allied Conditions, we suggest
ADAMS SPRINGS MINERAL WATER

● MANY physicians recommend the water in conjunction with the treatment of stomach, liver and kidney trouble.

ADAMS MINERAL SPRINGS is one of the seven known iron and maganese bi-carbonate springs in the world, and the only one in Western America.

It is not a cure-all, but it overcomes acid excesses in the body, and is a very mild but wonderfully effective eliminator. The bowels function without spasm, the kidney output is greatly increased, and there is *marked* drainage of bile from the gall bladder and liver.

There is also some constitutional upset for a few days, particularly in gall bladder cases. But this is soon over and your patient begins to show improvement and is now in condition to profit by any medication you may prescribe. If the case is an operative one, you have improved your patient and made of him a better risk.

We will be pleased to cooperate in any way whatever, and samples of water are yours for the asking.

A Natural Mineral Water
SHOWING MAIN CONSTITUENTS
By PROF. SYDNEY A. TIBBETTS, *Berkeley*

MANGANESE	1.3 parts per million
IRON	12.5 parts per million
CALCIUM	173.3 parts per million
MAGNESIA	339.3 parts per million
SODIUM	365.0 parts per million
SILICA	93.0 parts per million
CHLORINE	38.3 parts per million
SULPHATE	16.1 parts per million
NITRATE	0 parts per million
PHOSPHATE	.7 parts per million
CARBONATE	1551.4 parts per million
TOTAL	2591.4 parts per million

For further information write **DR. W. R. PRATHER**
ADAMS SPRINGS, LAKE COUNTY, CALIFORNIA

Steam heated hotel, open all year around.

3000 feet up in the Lake County Pines.

(Since 1870)

A consignment of aspirin labeled as a treatment for grippe, lumbago, and flu; "Duray," mostly borax with a little phenol and menthol, for female disorders, amenorrhea, dysmenorrhea, leukorrhea, and menopause; "Jim Wade Hygienic Powder," being a mixture of copper sulphate, zinc sulphate and ammonium alum, for soothing and healing inflamed or irritated mucous membrane, ulcerated conditions, soreness, acne, pimples, itch, eczema, and rash.

"Kroup Monia Cough Syrup," sugar, water, ammonium chlorid, glycerin, alcohol, chloroform 1.8 minims per fluid ounce (the label claimed 4 minims per fluidounce), menthol, and plant extracts including pine, for coughs, hoarseness and bronchial irritations; "Kroup Monia Penetrating Salve," petrolatum with eucalyptol, menthol, thymol, camphor and turpentine, for congestion and diseases of the lungs, throat and bronchi.

"Lund's Magic of the Grape," water, dextrose, mineral matter and 20 per cent grape juice, represented as being

(Continued on Next Page)

CALSO WATER

Palatable ALKALINE *Sparkling*

NOT A LAXATIVE

Calso Water: An efficient method of supplying the normal ALKALINE SALTS for counteracting ACIDOSIS.

Calso Water: Made of distilled water and the ALKALINE SALTS (C. P.) normally present in the healthy body.

Calso Water: Counteracts and prevents ACIDOSIS, maintains the ALKALINE RESERVE.

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Accredited by the American Medical Association and Approved by the American College of Surgeons. Open to all members of the California Medical Association. Accredited School of Nursing and Out-Patient Department.

(Continued from Preceding Page)

pure grape juice, for colds, rheumatism, emaciation, overweight, sleeplessness, cancer, congestion, and stomach, liver, kidney, intestine, lung, or bladder troubles; "Pneumo Oil," kerosene, peppermint and camphor, containing no alcohol although the label declared 10 per cent, for pneumonia, bronchitis, tonsillitis, pleurisy, quinzy, sore throat, neuritis, lumbago, rheumatism, all inflammatory troubles, coughs, soreness, painful swellings, and influenza.

"Prieto Tonic of Walnut," water, glycerin, alcohol, potassium iodid, sodium benzoate and plant extracts, including cinchona, represented as "made from Mexican herbs, roots and walnut-bark and medicinal extracts" and "used by the Indians for many years," for boils, pimples, skin diseases, light ulcers, poor blood, lack of appetite, insomnia, anemia, backache, heart fatigue, and cardiac asthenia.

"Red Oil Liniment," kerosene, capsicum, turpentine, sassafras and other volatile oils, for painful affections of the nerve, bone and muscular system, stiff joints, muscular rheumatism, lumbago, stiff neck, neuralgia, swellings, and stomach cramps; "Stark's Headache Powders," acetanilid, caffein and sodium bicarbonate, with the acetanilid content understated on the label, for headaches and neuralgia; "Vi-Go-Ra Olive Oil Hair Tonic," 78 per cent alcohol, castor oil, a sulphonated oil, water and color, with only a trace of olive oil, for dandruff, itching scalp, falling hair, and eczema.

"Whitmarsh Blood Elixir," water, 10 per cent alcohol, benzoic acid, and plant extracts including anise and an alkaloid, the bottle label declaring only 5 per cent alcohol and no alcohol declaration on the carton, for ivy, oak and sumac poisoning, boils and pimples, eczema, psoriasis, and acne; and "Wil-Du Rheumatism and Gout Medicine," 67 per cent alcohol (the label stated 50 per cent), water and plant extracts, for chronic and acute rheumatism and gout.

Courts Impose Fines

The following criminal actions were terminated during April, and the fines imposed by the courts trying the cases are given: Warren Packing Company, Warren, Indiana, tomato puree containing mold, fine $10 and costs; Sheridan Packing Company, Sheridan, Indiana, tomato puree containing mold, fine $25; Vallonia Canning Company, Vallonia, Indiana, tomato pulp, moldy, and containing insect particles, fine $25; Everett Packing Company, Underwood, Indiana, tomato puree containing mold and insect particles, fine $50; Los Angeles Nut House, Los Angeles, California, wormy, decomposed and rancid walnut meats, fines totaling $100.

Pacific American Fisheries, Inc., Bellingham, Washington, partially decomposed canned salmon, fine $85 and costs; Annette Island Canning Company, Metlakatla, Alaska, partially decomposed canned salmon, fine $150 and costs; Goodwin Preserving Company, Louisville, Kentucky, short-weight apple butter and preserves deficient in fruit, fine $330 and costs; Davis Cleaver Produce Company, Inc., Quincy, Ill., butter containing less than the legal minimum of butterfat, fine $350 and costs.

Chapman-Doake Company, Decatur, Illinois, dairy feed containing less protein than represented on its labeling, fine $25; Drew Corporation (James F. Drew) and National Company (LeRoy C. Morley), Brooklyn, New York, imitation lemon extract, worthless as a flavor, and an olive oil color and flavor misrepresented as to nature, origin and coloring properties, total fines of $259.

Temson Products Company, Chicago, Illinois, black pepper, paprika, and cream of tartar, all short weight, fine $50; Scharf Bros. Company, Inc., New York, New York, short-weight candy, a portion of which (rum and butter toffee) was misbranded as to the flavor and fat used, fine, $100; Latimer H. Studebaker, Erie, Pennsylvania, "Ac-Ne-O Tablets," represented as containing 1/50 grain arsenous acid per tablet, but containing less than 1/100 grain, fine $5 and costs.

Dr. Charles B. McFerrin, Orlando, Florida, "Per-Gum Pyorrhea Prescription," falsely represented as a germicide and antiseptic and offered for the relief of pyorrhea and spongy, tender bleeding gums, fine $25; Howard-Iowa Products Company (William G. Howard), Jefferson,

Tomorrow Begins TONIGHT

with Dial **"CIBA"**

When nervous exhaustion from overwork or neurosis causes insomnia preventing a restful recuperation in refreshing sleep for tomorrow's activities, DIAL (diallylmalonylurea), "Ciba," tablets or elixir, will promptly soothe jangled nerves and bring repose.

Awakening from Dial-induced slumber is unmarred by logginess. When taken during working hours in moderate doses, DIAL "Ciba," protects against irritating influences.

DIAL, "Ciba," in appropriate dosage, is useful in a wide range of nervous agitation from various causes where an effective sedative and hypnotic is indicated. Solution of DIAL with Urethane is most convenient for intramuscular administration.

TABLETS ELIXIR POWDER AMPULES

CIBA PHARMACEUTICAL PRODUCTS INC., SUMMIT, NEW JERSEY

Iowa, "Iowa Roup Remedy," mineral oil with small proportions of creosote and a tarry material, for roup in poultry, fines totaling $40 and costs.

Mineral Life Laboratories (Henry E. Sampson and Sidney J. Dillon), Des Moines, Iowa, "Mineral Life," 99.75 per cent water with sulphur dioxid, sulphuric acid and minute quantities of other salts, offered as an aid in the relief of disease and the maintenance of body health, for inflammation, pain, ulceration, catarrh, sinus trouble, and sore throat, fines totaling $40 and costs.

Syn-O-Scope Laboratories, Inc., Chicago, Ill., "Syn-O-Scope" and "Synex." oil of eucalyptus, menthol, camphor, alcohol and water, for sinus trouble, catarrh, hay fever, irritations and congested conditions of the head passages, fine $25; Howell-Schrader Drug Company (Andrew C. Howell), Iowa City, Iowa, "San Tone," sodium chlorid, sodium sulphate, and small amounts of ferrous sulphate, copper sulphate, plant material, sulphur, charcoal, carbonates, and phosphates, for worms, flu, necro and green scours in hogs and pigs, fines totaling $50 and costs.

Max Exeller, trading as Exeller Chemical Company, Brooklyn, New York, cream of tartar not conforming to the definition given in the United States Pharmacopeia, fine $50; Bellevue Laboratories, Inc., New York, New York, "Amidobar Compound A" containing less than the claimed amount of barbital, fine $50; and Z. Hubay, Memphis Tennessee, Bacillus acidophilus compound containing very few living bacilli of the type represented but many others as contaminants, fine $150.

One action based on the shipment of an allegedly misbranded "tonic" was dismissed because of the death of the defendant.

The appearance of the tongue often gives the general practitioner a clue as to the diseases of the body; its wagging always enlightens the alienist as to diseases of the mind.

New Facts in Cancer.*—In many respects present-day conditions in cancer are comparable to those in tuberculosis of thirty or more years ago. At that time tuberculosis was looked upon as a hopeless condition, one to be accepted with regrets, resignation, and folded hands. The sweet young thing of the gay nineties grew a trifle pale, her skin became transparent and angelic, bright red spots appeared over her cheek bones, she lost weight, felt languid, and was content to curl up before the fire. Her friends shook their heads, looked knowingly at each other and whispered significantly, "The poor young girl is going into decline." There was nothing to do but wait for the inevitable end, all conversation was delicately put, and the word "tuberculosis" was not even mentioned among themselves, let alone to the poor victim. A steady, persistent, educational effort on the part of those interested in tuberculosis gradually changed this attitude. We now know that not only are people not afraid of coming out into the open with the word itself, but instead of accepting the fact with resignation and hopelessness when this word is mentioned in connection with anyone it is the signal for a fight. How successful this fight is, is common enough knowledge today, for the mortality from this disease has been reduced in perfectly astonishing proportions. Not a little of the credit for this reduction in mortality must be given to the changed attitude of the public at large toward the disease.

In cancer a similar state prevails to that of years ago in tuberculosis. Many people are afraid to even mention the name. They still endow the condition with an aura of mysticism and hopelessness and throw up the sponge at the mere mention of the dread word.

But cancer deserves no such treatment. Patient after patient, numbering into the thousands and thousands in this country have been treated for cancer ten and more

* By Stanley P. Reimann, M.D. Read at St. Louis, February 20, 1936.

(Continued on Next Page)

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When you refer a patient to M. J. Benjamin you are assured that a support will be carefully made according to sound principles backed by two generations of experience.

Shaping each pad to conform to the hernial region permits the covering of a broader surface and the use of softer material.

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THE LONDON LANCET says: "There are two spots in the world with the most equable climate. One is Assuan, Egypt, the other is a little town in the foothills of the Santa Cruz Mountains in California, called Los Gatos."

Rates, Information and Booklet on Request

(Continued from Preceding Page)

years ago and are still living and perfectly free of their trouble, able to work and enjoy the fruits of their labor.

There are, fortunately, a number of men and women throughout the world interested in cancer, and interested to the extent that they are willing to spend their lives in doing for this disease. All are agreed that a most important step in reducing the mortality is for the public at large to become acquainted with it, to help drag it out from under cover, to examine it from its various angles, and to let the broad daylight of reason and knowledge dispel a great deal of its terrors, its mysteries, and, what is most important, its power to maim and kill. These individuals, giving their lives to the subject, proclaim a message, and this briefly is: many cancers occur in such situations of the body that they can be recognized very early and, having been recognized, if they are treated radically by experts, they can be completely eliminated. They also proclaim that in such cases where there is doubt of the diagnosis from ordinary examinations, it is time for rejoicing, for (1) accurate diagnosis can be made by competent pathologists from small pieces of tissue removed from suspicious areas, and (2) when it is necessary to do this because the gross diagnosis is in doubt, the disease has not as yet reached the point whcre complete elimination is impossible in most of the cases. There is still another message that they broadcast and that is, even if the disease is well established there are nevertheless many cases in which excellent end-results can be obtained and many more in which at least much needless suffering can be spared. They admit with concern and eagerness to prove, the fact that unfortunately some cancers cannot be diagnosed early and that some, unfortunately by the very nature of their situation, defy succcssful removal. On the other hand, they regard this as a challenge and a most urgent one for study, for careful consideration of possibilities and for patient and painstaking investigation into the matter.

Again they admit that our present methods of treatment are far from ideal, for they can be summed up in two procedures—cut out cancers, and burn them out. Unfortunately, this entails mutilation; but, fortunately, our forefathers and our contemporaries have so refined these methods that but a minimum of pain, discomfort, and disability are left as a result of these procedures. Let us bow our heads in gratitude and acknowledge the debt we owe to these friends of humanity who have so perfected our methods. If, then, our present methods are far from ideal, it is of impelling importance to at least try to outline what would be ideal in the treatment of the disease. First, it requires as accurate a statement as is possible of just what the disease is and does. It can be said for purposes of present definition that cancer is composed of cells which multiply but do not grow up subsequently as normal cells do; for normal cells, as we all know, when they are produced by multiplication of preëxisting ones, grow up and turn into all sort of different cells, such as those of the skin, the muscles, the bones, the nerves, and so on. Furthermore, having grown up, they arrange themselves so that they grow together and form parts such as arms and legs, and organs such as livers and hearts. Needless to say, they do this in tune to the lineage from which they come, so that the cells which have turned into stomach cells will arrange themselves into the form of a human stomach if it is in a human being, a dog stomach if it is in a dog, and so on. Failing to grow up and arrange themselves in any orderly fashion, cancer cells simply grow any old way, insinuate themselves in every direction, encroach upon and destroy whatever is in their path and thus lead to death of the organism in which they are growing so lawlessly.

Now it must be obvious that the ideals toward which cancer treatment should strive are to discover methods of stopping the cancer cells from multiplying, or if once they are multiplied, to make them grow up, whereupon they will automatically stop multiplying. To do this requires knowledge of all the hows, whys, and wherefores of why normal cells mature and thus stop their growth. Such a problem invites investigation from all sorts of angles; in fact, it is of utmost necessity that we use all methods of approach. Furthermore, it invites investigation into methods of

(Continued on Page 41)

Hay Fever testing with . . .

POLLEN ANTIGENS *Lederle*

TESTING SETS containing antigen for 8 of the most frequent offenders among Eastern pollens and for 14 most commonly encountered Western pollens are available.

Each set contains sufficient antigen for testing three patients.

A factor further affecting the certainty—and—safety of hay-fever diagnosis is the marked stability of "Pollen Antigens *Lederle*." Tests conducted by our Laboratories show that no demonstrable deterioration occurred during six years.

With these antigens, using the easily performed and easily interpreted scratch test, it is possible to estimate the *degree* of sensitivity of patients to injected pollen antigens. With this information, before treatment is instituted, the physician may plan appropriate modifications from the usual scheme of dosage—a few individuals who are least sensitive may require a higher dosage; others who are most sensitive may require a lesser dosage.

In view of the marked stability of "Pollen Antigens *Lederle*," physicians will find it advantageous to keep a supply on hand throughout the year, for the diagnostic scratch test may be made at any season and treatment by the preferred perennial method, commenced at any time.

Send for Hay Fever Manual

POLLEN DIAGNOSTICS
Lederle

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Drink
Coca-Cola
Delicious and
Refreshing

Pure refreshment

(Continued from Page 38)

growth of any and all living things, plants and animals, because it is the most fundamental of fundamental questions—why living things reproduce and grow as they do. With such complications it always seems a wonder we know as much as we do about the cancer problem and not that we know so little about it.

Of methods of approach which have been used in the last years, I can select but a few for discussion. To cover the ground even superficially would require a whole course. Perhaps I may interest you sufficiently that you will want to know more, even to the extent of inducing someone from your good city to start a little course in growth knowledge, as we have done in Philadelphia. You will find that it will repay, for what can be more interesting than to know about the growth of yourselves, of your children, of your animals, and of your plants?

I can introduce you briefly to a framework in some such manner as this: cancer is an old disease and many of its aspects were well known to the ancients. It passed through a stage of observation, as do all other forms of human knowledge. There are available accurate descriptions of how the disease starts, how it progresses, what it looks like, what parts it involves and what the peculiarities are, depending upon the parts involved, how it produces secondary growths, how it saps vitality and strength, and how it kills. With the advent of the microscope, the microscopic pictures of different kinds of cancer were accurately described, classified, and annotated. This can be called the static of the situation of what happens, but for the past thirty years, and particularly the last twenty years, dynamic experimentation has been added—the how of cancer—and this is a most hopeful sign.

But it is time to start a few details, so let us revert to the very beginnings of growth, say to that of a multicellular individual who starts from a fertilized egg. Let us keep in mind as explicitly as possible what happens in this astounding microscopic bit of living matter. In the words of Puteanus, "I will neglect gold, will praise what is more precious than any metal . . . if you would know of what it is I intend to speak, it is the egg; men marvel at the sun, at meteors flung from heaven, at stars swimming therein, but this is the greatest of all wonders." But even though, as William Harvey said, "the Efficient Cause of the Chicken (Egg) is hard to be found out," we will, nevertheless, attempt a little analysis on our own of how this transformation from a single solitary cell to a complicated, competent organism occurs.

In descriptive terms, there are three main processes. To make the thousands upon thousands of cells for a new organism the original cell must multiply. To produce the many different kinds of cells it is necessary for them, having been multiplied, to change into special kinds; and finally, all the now different kinds of cells must be properly organized, so that the right kinds of cells in the right numbers are gathered together to produce the right organs and the right parts, which in turn achieve the final functioning new individual.

First, then, the processes themselves must happen. They must be timed properly; they must be oriented properly in sets, so that brain cells, for instance, are not developed in the feet; the parts and organs must begin to function properly and at the right time, and so on. In truth, what more amazing progression of affairs is there than this? One important experimental method is to attempt to interfere with one process while the others are held constant; in this case we may pick upon any of these separate processes and see what happens when they are changed.

One of the first which suggests itself is to interfere with rates. Thus we may attempt to accelerate or retard the rate of cell multiplication and observe what happens to the succeeding processes. In order to do this we must have methods, and that which suggests itself as a logical procedure is to add to the medium in which a fertilized egg is developing, an excess of those chemicals which normally cause the cells to divide. It is possible to accelerate rates of cell multiplication by various means such as x-rays, by

(Continued on Next Page)

St. Luke's Hospital

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(Continued from Preceding Page)

tar, and so on. But cells do not multiply normally because they have x-ray plants within themselves, nor because tar is a normal intracellular constituent. Strictly speaking, when such means are used something abnormal is added to the picture, and under such circumstances we cannot draw safe deductions as to normality. Fortunately, within the last few years, it has been discovered that normal cell division does not take place unless sulphur in a certain form, known as the sulphydryl group, is present within cells. Whatever other substances may be used by normal cells for their processes of dividing, at least this is one, and apparently a most important one. The sulphydryl group, then, used as a tool for answering the timing question has yielded the following result: when cells multiply more rapidly by reason of the presence of an excess of this group, the two subsequent processes of differentiation and organization are also accelerated, and in many organisms in which this experiment has been tried the degrees of these processes are also increased.

Now, the characteristic of cancer cells is that they do not differentiate properly, and do not organize at all, which is exactly the opposite of the results obtained in the above-mentioned experiment. We, therefore, have information which seems to show that merely increasing the rate of cell multiplication produces quite the opposite of cancer. Incidentally, it might be mentioned that cancer cells, when they grow in the body, multiply much more slowly than do normal cells, which is indeed fortunate, for if they multiplied as rapidly as normal cells, structures as big as kidneys might develop in the course of two or three weeks, which would leave us aghast at such possibilities.

We no longer ask the question, which is more important: heredity or environment, because put in this form this query is entirely meaningless. What is environment to a cell would not be environment to an organ, and what is environment to an organ would not be environment to the whole organism, and so on to another interesting story. But we may ask the question, what happens when cells grow in a strange environment? Do they turn into cancer? I will cite two examples, one observational and one experimental, on this point. The goads used to prod oxen are often sharp enough to poke bits of skin deep into their tissues. They ofttimes survive there and sometimes grow, but when they do, they produce mere localized collections of cells and not cancer. By overstimulating the rate of growth of cells with sulfhydryl, they sometimes penetrate foreign environments but they do not turn into cancer. Apparently, then, changing the environment alone does not lead to malignancy.

And so we could mention many other pieces of knowledge, all tending to show that cells as well as whole organisms have great adaptive powers. They do the best they can under these different circumstances which means, in brief, they try to turn into parts and arrange themselves true to their lineage. But if this is the case, it must mean that something has happened to the inside of cancer cells,

(Continued on Page 44)

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so that they no longer can achieve their destiny, so to speak. Now when a cell is changed internally it is called mutation and this is called "somatic mutation." Difficult though this problem is, there are, nevertheless, bold enough spirits to tackle it, and I have every hope that information will be forthcoming on this in the course of the next few years.

Can you see any ways of beginning the hunt for this information? Among others, let me introduce you to one. The white of our good friend, the hen's egg, contains a quite uniform, homogeneous protein. Incubate a fertilized egg and at the end of three weeks this uniform, homogeneous material has been changed into an endless variety of different kinds of substances, such as muscle protein, brain protein, blood, lungs, and all the rest. The growing cells of the developing chick did it! They differentiated this egg white, is one way of saying it. Chemically spoken, the protein of the egg white consisted of a limited number of building blocks, called amino-acids, cemented together in certain configurations. The chick cells loosened the cement, took the separate amino-acids and then rebuilt them into different kinds of structures. Why not try to find the special part played in this growth and development scheme by each of the separate amino-acids? This is being done and we have already learned, for instance, that glycerin favors regenerative growth, that histidin acts indirectly by maintaining speeds of chemical reactions, and so on. At least this is a start toward finding out in chemical terms what cancer cells cannot do.

I could go on indefinitely, but I believe the starting point was to figure out an ideal for prevention and treatment. I hope the theoretical is somewhat plainer; I hope you have the impression that progress is being made; I hope you have discovered, with me, some of the fascinations of the subject.

In return, let me ask you to encourage us in our quest, to help where you can, to spread the news that the mortality from this disease today is far higher than it need be.

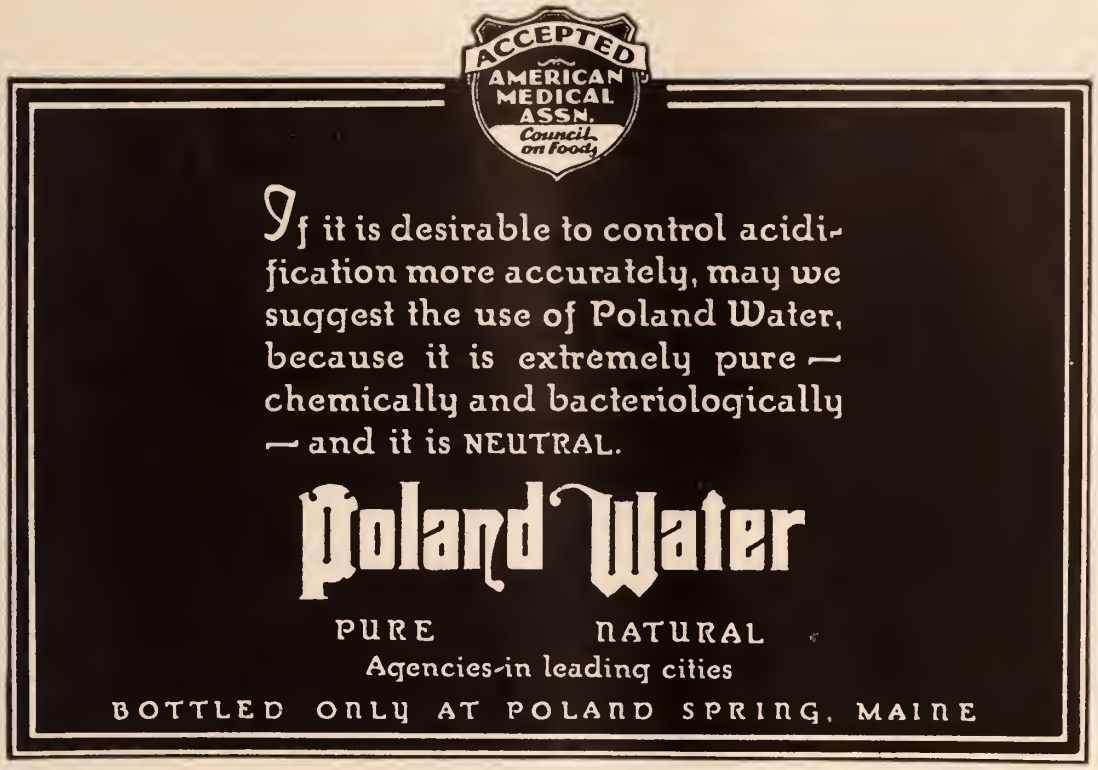
The Attitude of the General Practitioner in Cancer Control.*—No broad generalization can be made to apply to the attitude of all general practitioners toward cancer control. In some instances it is extremely discouraging. The general practitioner may adopt a defeatist attitude though often he is cancer-conscious.

During the economic depression, conditions have been particularly distressful for family physicians. A few were either on relief or should have been; pride sometimes prevented them from asking directly for aid. Under such circumstances the attempt to hold a pay patient is great. If the patient has some stomach trouble, a small lump in the breast, an ulcer in the mouth, or bleeding from the rectum or vagina, and is paying for treatment and visits at stated intervals, he or she is a source of much needed income. If the physician has any apparently reasonable excuse to keep such a patient without referring the patient elsewhere, and if the doctor is not making a living and has a family dependent upon him, the temptation to continue the treatment is very real. Particularly is this true if the doctor has an authoritative pronouncement which permits him to pocket his conscience and keep the patient, such as the defeatist attitude in cancer of the stomach, in which a rather high medical authority states that practically no cases of cancer of the stomach are cured, that the mortality rate from partial gastrectomy is prohibitively high, and that it will do no particular harm if the patient is kept for observation a few weeks longer.

As a matter of fact, resection of the stomach for early cancer or a suspicious ulcer, if carried out in competent hands, has a very low mortality rate. Naturally, if done by an inexperienced or occasional operator the mortality will be high.

In lumps in the breast, there formerly was a slogan that an accurate diagnosis of every lump in the breast should be made as soon as possible, but recently there have been statements that these lesions can wait, that probably x-ray treatment of an undiagnosed tumor of the breast would be justifiable, and that a doubtful malignancy admits of

*By J. Shelton Horsley, M.D. Read before the meeting of the Directors of the American Society for the Control of Cancer, Roosevelt Hotel, New York, March 6. 1937.



delay in treatment. Such statements from well-known medical men do an enormous amount of harm. They give license for delay, and delay in the treatment of cancer is the greatest obstacle to its cure.

The economic situation as it affects the treatment of cancer cannot be ignored, and while it is not the sole obstacle, it looms large.

Another cause for neglect of the cancer patient by the general practitioner is ignorance of the nature of cancer and of the results of treatment. Much material to combat ignorance of the results of the treatment of cancer has been furnished by the American College of Surgeons. This has undoubtedly done good. The report of 25,000 cured cases of cancer is an impressive showing.

The vicious circle of holding the patient until a definite diagnosis is easily made and sending the patient to the surgeon or radiologist when the disease has advanced too far for cure, and then saying that nothing can be done for cancer, is another obstacle in cancer control.

Doctor Rector has well pointed out some of these difficulties in what he calls "Seven Steps to the Undertaker" (Rector, Frank L., Weekly Bulletin of the St. Louis Medical Society, 31:274, February 5, 1937). Among the steps he mentions the fact that many doctors seem to be of the opinion that there is no cure for cancer, and that the treatment often increases the patient's suffering.

Another obstacle to the proper coöperation of the cancer patient and the family doctor is friendship. Friendship is often one of the greatest factors in the fatality of cancer. Examples of this are only too frequent. A case was reported before the American Association for the Study of Neoplastic Diseases about two years ago in which a roentgenologist, who was a comparative stranger to the patient, in a hospital in a small city in New York State, made a diagnosis of early cancer of the colon. The patient was a very prominent man and a special friend of his family physician. The family physician thought there must be some mistake, that the filling defect was probably from spasm. The consulting surgeon, also a friend of the patient, agreed to this. The patient had gall-stones and they were removed without examination of the colon. He improved for a while, but about twelve months later he was brought into the hospital with acute intestinal obstruction. Operation showed an inoperable carcinoma. The two attendants, who were close personal friends of the patient, could not at first believe that he had cancer of the bowel.

Thomas Scholz of New York (Scholz, Thomas: Curriculum Vitae of Two Gastric Cancers, Am. Jour. of Cancer, 18:834-851, August, 1933) reported two cases of early cancer of the stomach which were diagnosed by him. In each of these instances, however, the family physician and the patients felt that this diagnosis was not correct. The patient went to someone else, and finally, after two and a half years in one case, and three and a half years in the other, the patients' health having failed, operation revealed an inoperable cancer of the stomach. *Early cancer of the stomach almost always improves under medical treatment.*

If the family doctor could be persuaded to look at any of his patients, no matter how close a friend the patient is, from a detached standpoint and put his emotions on ice, it would help very greatly in the early diagnosis and cure of cancer.

It is well to emphasize to the general practitioner the fact that we have perfectly good cures for cancer, and that there is no trouble along that score if the cure is applied in an early stage of the disease. Treatment with x-ray, radium, surgical excision, or a combination of these measures, will cure in the great majority of early cancers. To apply these remedies late, however, is like using the antitoxin of diphtheria on the eighth or ninth day of the disease and then complaining because the antitoxin does not cure. The remedy is satisfactory; it is the stage at which it is applied that is the crucial point. It is this that we must stress not only to the general practitioner, but to the intelligent public, because intelligent public opinion has much to do with bolstering up the general practitioner. We know what happened in the treatment of tuberculosis. Public opinion became so strong that it assisted greatly in promoting better treatment for tuberculosis.

The objection some physicians urge that a cancer cam-

(Continued on Next Page)

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paign makes neurotics and induces cancerphobia is not really an objection, but a distinct advantage. Nothing can be done in combating any disease unless we create a nervous apprehension of it. In epidemics of scarlet fever, meningitis or typhoid fever, the first symptoms of disease often cause the patient to consult a physician. If everyone can be made to suspect or fear cancer when any symptom or sign of an unusual condition arises, and then immediately consult an intelligent physician, it would be the best possible mental salve that the individual could have if the doctor says that there is no cancer. If he finds cancer, it will probably be in an early stage and curable.

I believe the physician should tell the patient the truth. There is no excuse for lying to patients about the diseases they have. It creates distrust of the medical profession not only by the patient but by the relatives and friends of the patient, and causes a widespread undermining of confidence. I have never seen a patient who wanted to know whether he or she had cancer who was eventually adversely affected by the knowledge of the diagnosis. If the patient does not desire to know, there is no reason for giving disagreeable truths, but the patient should not be deliberately deceived. If the patient wants to know, I think the family physician or the surgeon should tell what the diagnosis is, and the relatives should also be informed. This creates an atmosphere of confidence that is essential to promote coöperation.

Statements by prominent medical or surgical authorities which tend to promote delay in referring a suspected cancer case to someone who can make a definite diagnosis and give proper treatment should be avoided. The attitude that cancers are almost always fatal and that there is no need of doing anything for them is, of course, perpetuated by the doctor who for that reason keeps his cancer case until the diagnosis is obvious. The earlier the diagnosis is made the more chance for cure the patient has, and there is no reason to keep the patient until the family physician is satisfied of the nature of the disease.

While, of course, his duty toward the patient has always been and always should be paramount in the mind of every right-thinking physician and surgeon, the economic question cannot be entirely ignored. The physician can be materially benefited by establishing a reputation for frankness and truthfulness in dealing with patients. After the patient is treated or operated upon he should be referred back to the family physician. Every cancer case should be under medical control and observation for months after the operation. If the patient is told this, and the surgeon or roentgenologist will coöperate, the family physician will receive for his services the financial return he justly deserves, which in the end will doubtless be greater than what he would make by keeping the patient until no cure can be effected, when the doctor cannot escape the opprobrium of neglect of professional duty. There should be no splitting of fees, or dividing the compensation, but the patient should be informed that it is necessary for the family physician to examine him or her at stated intervals and that the doctor should be fully paid for this service. The patient may not need medicine or treatment, but the examination is like a life insurance, and the care of the general practitioner for a long period of time is best for the health of the patient.

Making the general practitioner, as well as the laity, cancer-minded by seriously considering apparently trivial symptoms and signs in their early stages and insisting that something be done as soon as the diagnosis of cancer is made, follow-up methods and observation by the general practitioner after operation or treatment, with prompt reports to the surgeon or the roentgenologist, will promote both the health of the patient and the welfare of the general practitioner.

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Food Expenditures and Diets of Southern Industrial Families.—The diet of a typical Southern workingman's family spending more than $2.50 per person per week for food is more likely to provide the essentials of good nutrition than is the diet of a family spending the same amount for food in a North Atlantic industrial community, according to the United States Bureau of Home Economics report on food choices, costs, and nutrition of a cross section of industrial wage-earners' families of Birmingham, Mobile, Memphis, Richmond, and New Orleans.

Food purchase records kept by 426 white and 284 Negro families in connection with the 1935-1936 cost-of-living survey of the Department of Labor are part of 2,800 records, kept by families of wage-earners and low-salaried clerical workers in twenty-six cities of the North Atlantic, Pacific, and Southern regions.

Inadequate diets were encountered more in the South than in North Atlantic cities, but the majority of white families were spending less per capita than were families in the North Atlantic region. Negroes were on an even lower expenditure level. Two-thirds of the Southern white, and over four-fifths of the Negro families were spending less than $2.50 per capita a week for food, as compared with slightly over one-third of the families in the other two regions included in the study. Families were classified according to what they spent per person per week for food. The average weekly per capita income of the Southern white families ranged from $3.40 for the lowest food expenditure group to $10 for the highest group. That of the Negroes ranged from $2.80 to $9.50 in both racial groups. Food took from 28 to 33 per cent of the total income.

White Southern families tended to buy more eggs, fruits, vegetables, flour and meal, and the cheaper fats, but less milk, meat, poultry and fish than North Atlantic families on the same low expense level. Negro families were notably higher than families in other regions in their consumption of meat, poultry and fish, flour and meal, and of the cheaper fats, but below the average for other regions in their purchases of milk, eggs, and table fats.

In the South, as in other regions, the nutritive value of the family diet increased directly with the amount spent for food. Over half the families spending around $2.80 per capita a week were on diets likely to promote good average health and efficiency. Less than one-tenth of those spending around $1.60 a week were on high-grade diets.

White families spending about $1.60 per person weekly averaged per person: 3 pints of fresh milk, 4 eggs, one-tenth of a pound of butter, about 1 pound of other fats, 1⅓ pounds of meat, poultry or fish, 1½ pounds of sugar, 1 pound of bread and rolls, one-half pound of cereals, 2 pounds of flour and meal, almost 2 pounds of potatoes, 2 pounds of other vegetables, 1 pound of tomatoes and citrus fruits, 1½ pounds of other fruits.

White families spending around $2.80 per person a week bought over twice as much milk, butter and fruits, and almost twice as much meat, green, leafy, yellow and other vegetables, as did the families in the $1.60 group. They bought only slightly larger per capita quantities of grain products, sugars, and the cheaper fats.

The average person in the $2.50 group had a weekly supply of almost 4 quarts of fresh milk, 7 eggs, one-quarter pound of butter, 1 pound of other fats, 2¼ pounds of meat, poultry or fish, 1¾ pounds of sugar, syrup, jelly, etc., 1⅔ pounds of bread and rolls, one-half pound of cereals, 2 pounds of flour and meal, 2 pounds of potatoes, 3 pounds of other vegetables, 2 pounds of tomatoes and citrus fruits, almost 3 pounds of other fruits.

Of the families which spent only 60 cents to $1.25 per capita a week—about 8 per cent of the white and almost two-thirds of the Negro families—the white families bought annually per person only 75 pints of fresh milk, five pounds of butter, 26 pounds of tomatoes and citrus fruits, 51 pounds of other fruits, 70 pounds of potatoes, and 134 pounds of other vegetables. Negroes averaged a yearly per capita supply of only 34 pints of fresh milk, 4 pounds of butter, 12 pounds of citrus fruit and tomatoes, 31 pounds of other fruits, 78 pounds of potatoes, and 88 pounds of vegetables.

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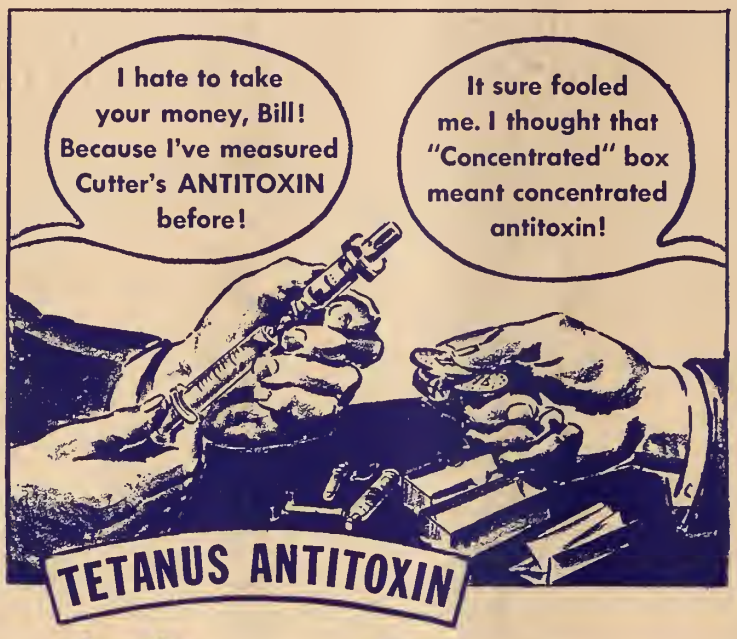

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Communications for the Public Relations Department should be addressed to the Director, Frederick C. Warnshuis, M. D., Room 2004, 450 Sutter Street, San Francisco.

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Gertrude Moore	Oakland	1938
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Henry J. Ullmann	Santa Barbara	1939
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President, H. Gordon MacLean, 230 Grand Avenue, Oakland.
Secretary, Gertrude Moore, 2404 Broadway, Oakland.
Meeting, *Third Monday, 8:15 p. m., Hunter Hall, Oakland.*

Butte County Medical Society
President, John H. White, 315 Wall Street, Chico.
Secretary, J. O. Chiapella, 131 Broadway, Chico.
Meeting, *Second Thursday.*

Contra Costa County Medical Society
President, Clara H. Spalding, 331 Eighth Street, Richmond.
Secretary, Thomas J. Dozier, 202 G Street, Antioch.
Meeting, *Second Tuesday, 8 p. m.*

Fresno County Medical Society
President, J. M. Frawley, T. W. Patterson Building, Fresno.
Secretary, O. B. Doyle, Bank of America Building, Fresno.
Meeting, *First Tuesday, University-Sequoia Club, Fresno.*

Humboldt County Medical Society
President, Allan R. Watson, 350 E Street, Eureka.
Secretary, Lawrence A. Wing, Fifth and F Streets, Eureka.
Meeting, *First Thursday.*

Imperial County Medical Society
President, Floyd A. Burger, Box 193, El Centro.
Secretary, Merritt C. Canfield, 204 Professional Building, El Centro.
Meeting, *Third Tuesday, 7 p. m., Barbara Worth Hotel, El Centro.*

Kern County Medical Society
President, H. R. McAllister, Professional Building, Taft.
Secretary, C. S. Compton, 428 C Street, Bakersfield.
Meeting, *Third Thursday, 8:30 p. m.*

Kings County Medical Society
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Secretary, William A. Johnstone, Hanford.
Meeting, *Second Monday, 8 p.m., Legion Hall, Hanford.*

Lassen-Plumas-Modoc County Medical Society
President, C. I. Burnett, Susanville.
Secretary, Fred J. Davis, Jr., Westwood.
Meeting, *On Call.*

Los Angeles County Medical Association
1925 Wilshire Boulevard, Los Angeles
President, John P. Nuttall, 203 Professional Building, Santa Monica.
Secretary, George D. Maner, 1925 Wilshire Boulevard, Los Angeles.
Meetings, *First and Third Thursdays, 1925 Wilshire Boulevard, Los Angeles.*

Marin County Medical Society
President, Anne L. Brady, Albert Building, San Rafael.
Secretary, Carl W. Clark, 510 B Street, San Rafael.
Meeting, *Fourth Thursday, 6:30 p. m., Marin Golf and Country Club.*

Mendocino-Lake County Medical Society
President, Thomas P. Hill, Lakeport.
Secretary, Charles A. Craig, Lakeport.
Meeting, *On Call.*

Merced County Medical Society
President, Max Brannon, Merced.
Secretary, Fred O. Lien, Shaffer Building, Merced.
Meeting, *Third Thursday, Hotel Tioga, Merced.*

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President, Garth Parker, 8 East Alisal Street, Salinas.
Secretary, Arthur L. Wessels, Salinas National Bank Building, Salinas.
Meeting, *First Thursday.*

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President, Fred Heegler, Migliavacca Building, Napa.
Secretary, M. M. Booth, Bruck Building, St. Helena.
Meeting, *First Wednesday.*

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President, Waldo S. Wehrly, 620 N. Main St., Santa Ana.
Secretary, Glenn Curtis, 323 So. Pomona Street, Brea.
Meeting, *First Tuesday, 8 p. m., Chapel of the Orange County Hospital, Orange.*

Placer County Medical Society
President, C. E. Lewis, 59 Lincoln Ave., Auburn.
Secretary, Robert A. Peers, Colfax.
Meeting, *At Call of President.*

Riverside County Medical Society
President, H. L. Ratliff, 3616 Main Street, Riverside.
Secretary, Thomas A. Card, 3616 Main Street, Riverside.
Meeting, *Second Monday, 8 p. m., Library, Riverside Community Hospital.*

Sacramento Society for Medical Improvement
President, Raymond M. Wallerius, 312 Physicians Building, Sacramento.
Secretary, Glenn E. Millar, 321 Physicians Building, Sacramento.
Meeting, *Third Tuesday, 8:30 p. m., Auditorium, Sacramento.*

San Benito County Medical Society
President, L. C. Hull, Hollister.
Secretary, L. E. Smith, Hollister.
Meeting, *At Call of President.*

San Bernardino County Medical Society
President, Delbert B. Williams, 401 North Eighth Street, Colton.
Secretary, A. E. Varden, Medico-Dental Building, San Bernardino.
Meeting, *First Tuesday, 8 p. m., San Bernardino County Charity Hospital.*

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Fourteenth Floor, Medico-Dental Building, 233 A Street, San Diego
President, S. J. McClendon, 2001 Fourth Street, San Diego.
Secretary, W. H. Newman, Medico-Dental Building, San Diego.
Meeting, *Second Tuesday, El Cortez Hotel.*

San Francisco County Medical Society
2180 Washington Street, San Francisco
President, T. Henshaw Kelly, 490 Post Street, San Francisco.
Secretary, Stanley H. Mentzer, 2180 Washington Street, San Francisco.
Meetings, *Every Tuesday, 8:15 p. m., 2180 Washington Street, San Francisco.*

San Joaquin County Medical Society
President, John S. Blinn, 1101 Medico-Dental Building, Stockton.
Secretary, George H. Rohrbacher, Medico-Dental Building, Stockton.
Meeting, *First Thursday, 8:15 p. m., Medico-Dental Club Rooms, Stockton.*

San Luis Obispo County Medical Society
President, Charles R. Kennedy, Bank of America Building, Paso Robles.
Secretary, E. D. Anderson, 1120 Morro Street, San Luis Obispo.
Meeting, *Third Saturday, 6:30 p. m., Mulholland's Grill, San Luis Obispo.*

San Mateo County Medical Society
President, Frank S. Gregory, 736 Main Street, Redwood City.
Secretary, J. Garwood Bridgman, 205 Third Avenue, San Mateo.
Meeting, *Fourth Wednesday, Benjamin Franklin Hotel, San Mateo.*

Santa Barbara County Medical Society
President, Irving Wills, 1421 State Building, Santa Barbara.
Secretary, William H. Eaton, 822 De la Guerra Terrace, Santa Barbara.
Meeting, *Second Monday, Cottage Hospital.*

Santa Clara County Medical Society
President, R. Stanley Kneeshaw, 404 Medico-Dental Building, San Jose.
Secretary, Leslie B. Magoon, Medico-Dental Building, San Jose.
Meeting, *Third Wednesday, 8 p. m., Medico-Dental Building, San Jose.*

Santa Cruz County Medical Society
President, A. N. Nittler, 36½ Pacific Avenue, Santa Cruz.
Secretary, Samuel B. Randall, Farmers and Merchants Bank Building, Santa Cruz.
Meeting, *Second Tuesday, 7:30 p. m., Hotel Rio del Mar, Aptos.*

Shasta County Medical Society
President, Oscar J. Hansen, 318 Yuba Street, Redding.
Secretary, Leslie J. Seeley, 1432 York Street, Redding.
Meeting, *Second Monday.*

Siskiyou County Medical Society
President, E. F. Carlson, Fort Jones.
Secretary, J. B. McGuire, Mt. Shasta City.
Meeting, *Second Sunday.*

Solano County Medical Society
President, H. Brownlie Perkins, 445 Georgia Street, Vallejo.
Secretary, John W. Green, Box 539, Vallejo.
Meeting, *Second Tuesday, 8 p. m., Casa de Vallejo Hotel, Vallejo.*

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Secretary, C. M. Carlson, 1055 Fourth Street, Santa Rosa.
Meeting, *Second Thursday.*

Stanislaus County Medical Society
President, Marion C. Collins, Turlock.
Secretary, Edwin F. Hagedorn, Box 834, Modesto.
Meeting, *Second Friday.*

Tehama County Medical Society
President, Donald E. Thompson, Red Bluff.
Secretary, F. J. Bailey, Red Bluff.
Meeting, *At Call of President.*

Tulare County Medical Society
President, J. C. McClure, Lindsay.
Secretary, Karl F. Weiss, Security First National Bank Building, Visalia.
Meeting, *Sunday Evening once a month.*

Ventura County Medical Society
President, F. R. Hendricks, 885 East Main Street, Ventura.
Secretary, A. A. Morrison, 625 Main Street, Santa Paula.
Meeting, *Second Tuesday, Ventura County Country Club.*

Yolo-Colusa-Glenn County Medical Society
President, Stanley E. Coffey, 239 Fourth Street, Orland.
Secretary, Ray E. Nichols, Woodland.
Meeting, *First Tuesday.*

Yuba-Sutter County Medical Society
President, Stanley R. Parkinson, 434 Fourth Street, Marysville.
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Meeting, *Second Tuesday.*

(Roster lists continued on advertising page 6)

DIARRHEA

"the commonest ailment of infants in the summer months"

(HOLT AND McINTOSH: HOLT'S DISEASES OF INFANCY AND CHILDHOOD, 1933)

One of the outstanding features of DEXTRI-MALTOSE is its low fermentability and consequent preference in the management of infantile diarrhea.

In summer diarrhea, "The best food to use is boiled skimmed milk, acid skimmed milk, or dried protein milk. Carbohydrates are added in the form of dextri-maltose."—*G. Wiswell: Infant mortality and its prevention, Nova Scotia M. Bull., 15:504-509, Oct. 1936.*

—•—

Concerning the treatment of diarrhea, "If the weight remains stationary, it is an indication that loss of substance is occurring through the stools, mostly in the form of alkaline salts. To equalize this loss of substance, the diet must be increased, but in such a way as to avoid causing fermentation. This may be done by adding dextri-maltose and preparations of protein to the food, increasing the calories until the infant is taking 160 calories per kilo. of body weight."—*H. L. Ratnoff, Nutritional disturbances, Arch. Pediat., 41:771, Nov. 1924.*

—•—

"A very frequent cause of underfeeding results from the improper treatment of diarrhea . . . One of the greatest advances made in the science of infant feeding was the development of protein milk by Professor Finkelstein and the use of buttermilk or lactic acid mixtures. The great advantage of being able to feed the infant with fermentative diarrhea a food containing 12 calories to the ounce, like protein milk, after only one day on a starvation diet, is apparent. In addition, the further advantage of being able to safely add a carbohydrate like Dextri-Maltose No. 1 or No. 2 to the protein milk within a few days, enables one to gradually bring the infant up to its basal needs in a short time. When protein milk was first used, carbohydrate additions were advised against with the result that many children on it went into a state of collapse. The suggestion of Dr. Alan Brown of Toronto, Canada, that Dextri-Maltose be added to protein milk, was of great value."—*G. J. Feldstein: Underfeeding of infants and children, Arch. Pediat., 50:297-306, May 1933.*

—•—

Regarding the treatment of diarrhea, "In our experience, the most satisfactory carbohydrate for routine use is Mead's dextrimaltose No. 1."—*F. R. Taylor: "Summer Complaints," Southern Med. & Surg., pp. 555-559, Aug. 1927.*

—•—

"Again, following the teaching of the originator of protein milk, the carbohydrate added should be the one that is most easily assimilated. Dextri-maltose is the carbohydrate of choice."—*R. A. Strong: The diarrheas of early life, Mississippi Doctor, 14:9-15, Sept. 1936.*

"If the stools are acid, green, and excoriating, a food high in protein and low in fat, and carbohydrate is indicated. Dried powdered protein milk is very ideal here—one to ten dilution. On the other hand, if the evacuations are brown, watery, and stinking with putrefactive odors, a proteolytic diarrhea, it will be of advantage to add a small amount of carbohydrate, a dextrimaltose preparation being very efficacious."—*A. G. Dorr: Diarrheas in infants, Nebraska M. J., 20:22-24, Jan. 1935.*

SERIOUSNESS OF DIARRHEA

There is a widespread opinion that, thanks to improved sanitation, infantile diarrhea is no longer of serious aspect. But Holt and McIntosh declare that diarrhea "is still a problem of the foremost importance, producing a number of deaths each year. . . ." Because dehydration is so often an insidious development even in mild cases, prompt and effective treatment is vital. Little states (Canad. Med. A. J. 13: 803, 1923), "There are cases on record where death has taken place within 24 hours of the time of onset of the first symptoms."

—•—

". . . After the preliminary short period of starvation, protein milk should be used. . . . When the diarrhea has been sufficiently checked, dextrimaltose may be added and gradually increased until from 4 to 6 tablespoons are being used."—*W. L. Denney: Acute nutritional disturbances of infancy, Univ. West. Ontario M. J., 2:192-137, April 1932.*

—•—

In diarrhea, "Carbohydrates, in the form of dextri-maltose, well cooked cereals or rice, usually can be handled without trouble."—*B. B. Jones: A discussion of some of the commoner types of infantile diarrhea, and the principles underlying the diets used in their treatment, Virginia M. Monthly, 55:411-415, Sept. 1928.*

In the treatment of dysentery, "As a useful supplement, Bessau's thick rice water with 1 to 5 per cent dextrimaltose may be used, or soy bean milk, which also may serve as main nourishment in the rare cases of hypersensitiveness to cow's milk."—*O. Willner: Dysentery, in The Practitioner's Library of Medicine & Surgery, D. Appleton-Century Co., Inc., New York, 1935, vol. 7, p. 371.*

—•—

In cases of diarrhea, "For the first day or so no sugar should be added to the milk. If the bowel movements improve carbohydrates may be added. This should be the one that is most easily assimilated, so dextri-maltose is the carbohydrate of choice."—*W. H. McCaslan: Summer diarrheas in infants and young children, J. M. A. Alabama, 1:278-282, Jan. 1932.*

—•—

"When there has been a tendency to looseness of the bowels, a form of sugar which ferments but slightly, such as dextrimaltose, may be employed."—*W. Sheldon: The artificial feeding of infants, Practitioner, 134: 415-428, April 1935.*

—•—

". . . I begin to add carbohydrates slowly, by replacing ¼ ounce Casec every two days with ¼ ounce of Dextri-Maltose, preferably Dextri-Maltose Number one. As a rule, this is tolerated. When one ounce of Dextri-Maltose is used, the Casec, of course, should be discontinued."—*J. W. Reed: The etiology and treatment of diarrheas of infancy, Virginia M. Monthly, 53:732-735, Feb. 1927.*

—•—

In treating chronic diarrhea, "You do not need to starve such patients, but you select a diet of dried protein milk with the addition of dextrimaltose given in small three-hourly feeds, or soured milk, or an ordinary half-cream dried milk, or a whey mixture."—*R. Hutchison: Lectures on Diseases of Children, ed. 7, William Wood & Co., Baltimore, 1936, pp. 26, 65, 71-72, 76.*

—•—

"The effect of a combination of dextrimaltose depends on the relative properties of the two components. If maltose is in excess, it tends to cause fermentation and loose stools, while dextrins are non-fermentable. In the preparations commonly used, Mead's Dextri-maltose Nos. 1 and 2, the maltose is only slightly in excess of the dextrins, and therefore they are advantageous if there is a tendency to excessive fermentation."—*W. J. Pearson and W. G. Wyllie: Recent Advances in Diseases of Children, P. Blakiston's Sons & Co., Phila., 1930, pp. 74, 116.*

Just as DEXTRI-MALTOSE is a *carbohydrate* modifier of choice, so is CASEC (calcium caseinate) an accepted *protein* modifier. Casec is of special value for (1) colic and loose green stools in breast-fed infants, (2) fermentative diarrhea in bottle-fed infants, (3) prematures, (4) marasmus, (5) celiac disease.

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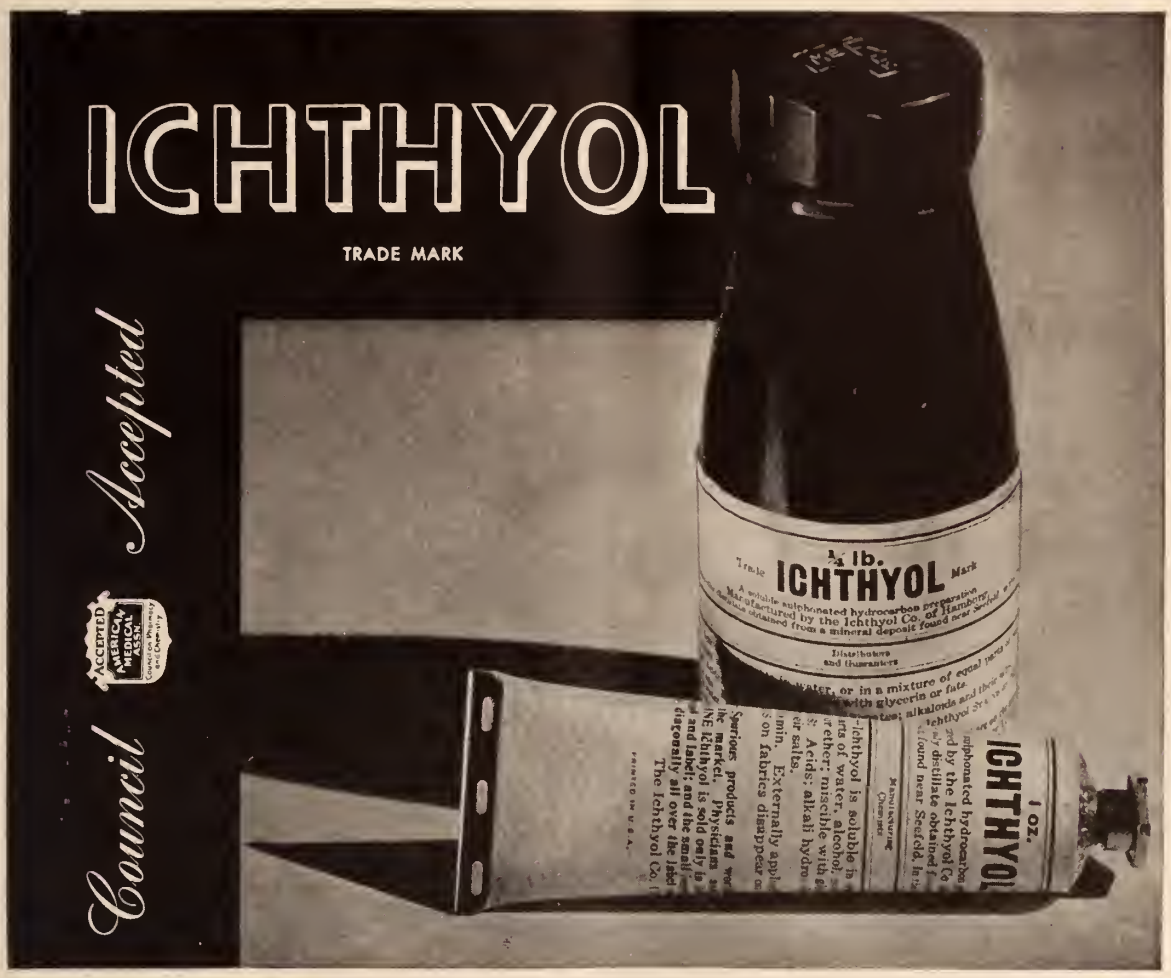

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Some Facts About the Standard Milk Ordinance.—The following points are essential to any good milk ordinance:

1. Definitions of milk, milk products, and other terms used in the ordinance or regulation.
2. Prohibition of the sales of adulterated milk and milk products.
3. Provision for permits, and for permit revocation.
4. Requirements governing the labeling of containers.
5. Requirements relating to the frequency of inspection and reinspection and the posting of inspection reports.
6. Requirements relating to the frequency of taking milk samples and to the laboratory examination thereof.
7. Specifications for certified milk, Grade A raw milk, Grade A pasteurized milk, and all other grades of milk offered for sale.
8. Provision for the punishment of violators by degrading.
9. The usual sections relating to penalties; repeal of conflicting prior legislation; date of effect, unconstitutionality.

Experience has shown that a workable and enforceable ordinance must contain these features. Leave out any of them and the ordinance is not complete and, if not complete, it is not enforceable. If all these points are included, the basic principles of a good ordinance are there and, upon analysis, the United States Public Health Service Standard Milk Ordinance will be found to contain them all.

Experience has also proved that it is good business for the dairyman to have at least the facilities required by the Standard Ordinance in order to handle his milk conveniently, to say nothing of the added quality correct handling will give to his product.

Under the Standard Ordinance periodical surveys are made by state and federal officials. These surveys aid local men in keeping up on latest methods and, while these officials help to avoid carelessness by calling attention to items that otherwise might be overlooked, their main function is to aid dairymen in producing a product which is at all times the best obtainable and one that will merit the full confidence of the consuming public.

The Standard Ordinance also aids the dairyman in marketing his milk because it provides him with an ordinance and requirements which are permanent. There is no drastic revision of the ordinance every few years, as it is unnecessary, nor is there drastic remodeling of a plant. Improvements are added gradually with no fundamental change.

In some populous territories a dairy may be under two inspection areas. Unless the ordinances are the same, difficulties due to conflicting requirements are bound to arise. Standard requirements will eliminate any possibility of this trouble.

If the Standard Ordinance is the basis of grade, the consuming public can be educated as to what "grade" means and it will be of much greater benefit to the dairyman than any other system of advertising, when people know that the grade on the cap means something.

The two fundamentals of milk sales and milk production are food value and sanitary quality. Sanitary quality does not mean the individual dairyman's idea of quality, but a product based upon standards established by recognized authorities in the field of sanitation. When the public becomes educated to the fact that milk is not only a desirable and adequate food but that it can be consumed with safety, the dairyman will be enabled to increase his business by constructive selling instead of by getting some other dairyman's customer.—*Ohio Health News.*

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With this dosage, effect upon blood pressure was limited although occasional fluctuations of ten to thirty millimeters were observed. No severe complications were encountered. Minor complaints of dizziness, tremor, etc., seemed to have a relationship to speed of absorption and the authors feel it inadvisable to administer "Benzedrine Sulfate" on an empty stomach.

General psychological stimulation was produced which was shown by increased confidence, initiative, talkativeness, and activity. Thinking processes appeared to be speeded up without impairing concentration or judgment.

There was a wide variation in the response of individual patients. Normals exhibiting retardation, indecision, and mild depression were generally benefited. Patients with cyclothymic tendencies had the most constant beneficial effects. Although patients suffering from mild depressions often were carried over periods of disability, severe depressions received little benefit. Some schizophrenics, particularly those with lack of initiative, seemed to benefit. Patients with narcoleptic sysptoms received constant relief.

"Benzedrine Sulfate" appeared to be contraindicated where anxiety was a prominent feature, although some patients of this type showed improvement. In general, hypochrondriacs did not respond favorably, and with all subjects possible production of insomnia had to be considered. There did not seem to be any necessary relationship between psychological effects and blood pressure change.

No tendency to addiction was observed and the authors feel that the unpleasant reactions obtained with overdosage will be sufficient to assure the proper usage of the drug.

* By Guttmann, E. and Sargant, W.: British Medical Journal, 1:1013, May 15, 1937.

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Despite this very marked increase, the 1936 rate was far below the rate of 35.9 deaths per 100,000 recorded in 1929, the last year of full business activity. Since employment last year, particularly in certain hazardous industries —construction, transportation, public utilities—was still much below the 1929 level, it is fairly certain that, as employment picks up further in these industries, the occupational accident rate will rise to a higher figure than was recorded in 1936.

Only one type of fatal occupational accident—automobile accidents exclusive of automobile collisions with railroad trains, engines, or street cars—registered a decline in 1936 over 1935. The decrease of 7.5 per cent in this type of accident was particularly encouraging in that it followed a drop of 11.1 per cent in the previous year.

Sizable increases took place in the death rates from traumatism by falls, by machines, and in mines and quarries, which, together with automobile accidents, are the four most prolific causes of fatal occupational injury. These increases paralleled expansion of employment in the construction, manufacturing, and mining and quarrying industries.

Fatal occupational accidents on steam railroads and street railways also occurred at greatly increased frequencies in 1936 among the wage-earners insured in the company. These higher rates are partly due to an increased number of collisions with automobiles. Some of the gains made in the other types of automobile accidents previously mentioned were thus wiped out.

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He who has health has hope; he who has hope has all.—An Arab Proverb.

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Books received for review are placed in the Library of the California Medical Association, in its central office at San Francisco. Book reviews are written by the Association Secretary.

BOOKS RECEIVED

The Technic of Local Anesthesia. By Arthur E. Hertzler, A. M., M. D., Ph. D., LL. D., F. A. C. S., Professor of Surgery in the University of Kansas; Surgeon to Halstead Hospital, Halstead, Kansas; to St. Luke's Hospital and St. Mary's Hospital, Kansas City, Missouri; and to Providence Hospital, Kansas City, Kansas. Sixth Edition. Cloth. Pp. 284, illustrated. Price, $5. St. Louis: The C. V. Mosby Company, 1937.

Physical Diagnosis. The Art and Technique of History Taking and Physical Examination of the Patient in Health and in Disease. By Don C. Sutton, M. S., M. D., Associate Professor of Medicine, Northwestern University School of Medicine; Attending Physician and Chairman of the Medical Division of the Cook County Hospital; Chief of the Cardiac Clinic, Cook County Hospital, Chicago; Attending Physician, The Evanston Hospital. Cloth. Pp. 495 with 298 text illustrations and eight color plates. Price, $5. St. Louis: The C. V. Mosby Company, 1937.

Dextrose Therapy in Everyday Practice. A Survey of the Literature, 1900-1936, on the Experimental and Clinical Studies Applicable to Medicine and Surgery. By E. Martin, Sc. D., New York, with forewords by W. N. Haworth, F. R. S., Director of the Department of Chemistry, University of Birmingham (Eng.), and Bernard Fantus, M. D., Professor of Therapeutics, University of Illinois, College of Medicine. Cloth. Pp. 451, with forty-four illustrations including fifteen full-page plates. Price, $3. New York: Paul B. Hoeber, Inc., 1937.

Clinical Allergy. By Louis Tuft, M. D., Chief of Clinic of Allergy and Applied Immunology, Temple University Hospital; Associate in Immunology, Temple University School of Medicine; Director of Laboratories, Pennsylvania Department of Health, Philadelphia. Introduction by John A. Kolmer, M. D., Dr. P. H., D. Sc., LL. D., L. H. D., Professor of Medicine, Temple University; Director of Research, Institute of Cutaneous Medicine, Philadelphia. Cloth. Pp. 711, illustrated. Price, $8 net. Philadelphia: W. B. Saunders Company, 1937.

Health Education of the Public. A Practical Manual of Technic. By W. W. Bauer, B. S., M. D., Director, Bureau of Health and Public Instruction, American Medical Association, Associate Editor of Hygeia, The Health Magazine, and Thomas G. Hull, Ph. D., Director, Scientific Exhibit, American Medical Association, Associate Professor of Bacteriology, University of Illinois, College of Medicine. Cloth. Pp. 227 with thirty-nine illustrations. Price, $2.50 net. Philadelphia: W. B. Saunders Company, 1937.

Safely Through Childbirth. A Guide Book for the Expectant Mother. By A. J. Rongy, M. D., F. A. C. S., Fellow of the New York Academy of Medicine, Member, American Association of Obstetricians, Gynecologists and Abdominal Surgeons; American Association for the Advancement of Science. At present Attending Obstetrician and Gynecol-

(Continued on Next Page)

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BOOKS RECEIVED

(Continued from Preceding Page)

ogist, Lebanon Hospital, and Consulting Gynecologist, Rockaway Beach and Royal Hospitals. Cloth. Pp. 192, with twenty illustrations. Price, $2. New York: Emerson Books, Inc., 1937.

Childbirth: Yesterday and Today. The Story of Childbirth Through the Ages, to the Present. By A. J. Rongy, M. D., F. A. C. S., Fellow of the New York Academy of Medicine, Member Association of Obstetricians, Gynecologists and Abdominal Surgeons; Attending Obstetrician and Gynecologist, Lebanon Hospital, and Consulting Gynecologist, Rockaway Beach and Royal Hospitals. Cloth. Pp. 192 with twenty illustrations. Price, $2. New York: Emerson Books, Inc., 1937.

Sex Life in Marriage. By Oliver M. Butterfield, M. A., Former Staff Member (Child Development and Parent Education), Teachers College, Columbia University. Foreword by Sophia J. Kleegman, M. D., Fellow American College of Surgeons; Assistant Clinical Professor, Obstetrics and Gynecology, New York University College of Medicine; Assistant Attending Gynecologist, Bellevue Hospital, New York. Cloth. Pp. 192. New York: Emerson Books, Inc., 1937.

Short-Wave Diathermy. By Tibor de Cholnoky, Associate in Surgery, New York Post-Graduate Medical School, Columbia University. Cloth. Pp. 310. Price, $4. New York: Columbia University Press, 1937.

Clinical Endocrinology. By Samuel A. Loewenberg, M. D., F. A. C. P., Clinical Professor of Medicine, Jefferson Medical College, Philadelphia; Assistant Visiting Physician, Jefferson Hospital; Visiting Physician, Philadelphia General Hospital, Northern Liberties Hospital, and Eagleville Sanatorium for Consumptives; Consulting Physician to the Philadelphia Hospital for Contagious Diseases. Foreword by Hobart A. Reimann, M. D., Professor of Medicine and Clinical Medicine, Jefferson Medical College, Philadelphia. Cloth. Pp. 825 with 194 illustrations and thirty-seven charts and tables. Price, $8. Philadelphia: F. A. Davis Company, 1937.

Synopsis of Gynecology. Based on the Textbook Diseases of Women. By Harry Sturgeon Crossen, M. D., F. A. C. S., Professor Emeritus of Clinical Gynecology, Washington University School of Medicine; Gynecologist to the Barnes Hospital, St. Louis Maternity Hospital, and St. Luke's Hospital; Consulting Gynecologist to De Paul Hospital and the Jewish Hospital, and Robert James Crossen, M. D., Assistant Professor of Clinical Gynecology and Obstetrics, Washington University School of Medicine; Assistant Gynecologist and Obstetrician to the Barnes Hospital and the St. Louis Maternity Hospital; Gynecologist to St. Luke's Hospital and to De Paul Hospital. Second Edition. Cloth. Pp. 247. Price, $3. St. Louis: The C. V. Mosby Company, 1937.

Nutritive Aspects of Canned Foods. A bibliography of scientific reports, and helpful tables of food data. Cloth. Pp. 110. New York: American Can Company, 1937.

Maternal Care. The Principles of Antepartum, Intrapartum, and Postpartum Care for the Practitioner of Obstetrics. Approved by The American Committee on Maternal Welfare, Inc. Prepared by Dr. W. C. Danforth, Dr. G. W. Kosmak, Dr. R. L. DeNormandie, Dr. F. L. Adair. Editor. Paper. Pp. 93. Price, 25 cents. Chicago: The University of Chicago Press, 1937.

The Seamen's Handbook for Shore Leave. By Mrs. Henry Howard. Sixth Edition. Cloth. Pp. 435. Price, 50 cents. New York: American Merchant Marine Library Association, 1937.

BOOK REVIEWS

The Larynx and Its Diseases. By Chevalier Jackson, M. D., Sc. D., LL. D., F. A. C. S., Professor of Bronchoscopy and Esophagoscopy, Temple University, Philadelphia, and Chevalier L. Jackson, A. B., M. D., M. Sc. (Med.), F. A. C. S., Professor of Clinical Bronchoscopy and Esophagoscopy, Temple University, Philadelphia. Pp. 555 with 221 illustrations, including eleven plates in color. Philadelphia and London: W. B. Saunders Company, 1937. Cloth. Price, $8 net.

Devoted exclusively to its subjects and needless to say thoroughly and completely. The authors give assurance of dependability and conclusions and opinions based upon an extensive clinical experience. Practitioner or specialist in all branches of medicine will find this text of more than

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passing interest and value. It is a welcome addition to American authoritative texts.

Clinical Reviews of the Pittsburgh Diagnostic Clinic. Pp. 551. Price, $5.50. Paul A. Hoeber Co.

This book contains some forty-five articles by the staff of this clinic. Their range is wide, subjects varied and case comments numerous. Interesting, instructive, but no more so than a good medical journal.

Personal Hygiene. C. E. Turner, Dr. P. H. Pp. 335. Price, $2.25. C. V. Mosby Company, St. Louis.

A well written, informative text upon the subject. Very suitable and can be commended for high school and college students as well as to the public. It presents essential facts and enables the reader to acquire a standard of health knowledge.

The Collected Papers of the Mayo Clinic and the Mayo Foundation. Edited by Richard M. Hewitt, B. A., M. A., M. D.; Lloyd G. Potter, and A. B. Nevling, M. D. Volume XXVIII (Papers of 1936—Published 1937), Octavo of 1,331 pages with 212 illustrations. Philadelphia and London: W. B. Saunders Company, 1937. Cloth, $12 net.

It is simply impossible to write any extended review of this series. There is no single outstanding paper—they are all characteristically complete. These collected papers are a valuable addition to any library and constitute a dependable reference text.

Outline of Modern Treatment of Fractures. H. Waldo Spiers, M. D., College Medical Evangelists. Pp. 137. William Wood Company.

An excellent outline that should be very helpful to those caring for fractures. The high spots of practical methods are well covered. Students and internes will find this outline pointing the way toward good fracture treatment. Illustrations are clear and pertinent to the text subject.

Clinical Allergy. Albert H. Rowe, M. D., University of California. Pp. 812. Price, $8.50. Lea & Febiger.

Rowe has prepared this text based on the causes of food, inhalants, contactants, fungi, bacteria, and some certain other cause. The manifestation, diagnosis and treatment is well presented.

Now that allergy has attained distinct recognition and every practitioner is confronted with its manifestations, Rowe has rendered a distinct service in preparing this well written text. Every physician must become well informed upon this subject. This text will enable him to obtain a clear understanding of the subject.

The book is well arranged. Discussion is clear and readily understood. Clinical reports are well interspersed and stress the basic facts. The subject is thoroughly covered. This text is strongly recommended to every medical practitioner.

Treatment of Diabetes Mellitus. Elliot P. Joslin, M. D. Pp. 707. Price, $7. Lea & Febiger.

The profession has made available to it this sixth edition of a text by this recognized authority. He states that protamin insulin necessitated this revision. There is an extended discussion of this protamin, its use, value and careful suggestion as to how insulin users may be transferred to the use of protamin without serious mishap. The general practitioner is told clearly and intelligently regarding these methods.

Little more need to be said. This text will be most welcome and will be found to be a sound, dependable consultant to all who undertake the care of diabetics.

Infantile Paralysis and Cerebral Diplogia. Elizabeth Kenney. P. B. Blakiston Son and Company.

A description of reconstructive physical therapy methods employed in Queensland Hospital in Australia. A well formulated presentation of these methods.

The Mentally Ill in America. Albert Deutsch. Foreword by Dr. William A. White of Washington, D. C. Doubleday, Doran & Company, New York.

Sponsored by the American Foundation for Mental Hygiene. A historical narration of care and treatment since Colonial days written for the general public with a more or less dramatic setting.

Many will find it interesting, all should find it instructive. The Foundation might well send a copy to legislators and judges. Libraries will do well to place it upon their reference shelves.

Technic of Local Anesthesia. Arthur E. Hertzler, A. M., M. D., University of Kansas. Sixth Edition. Cloth. Pp. 284. Price $5. C. V. Mosby Company, St. Louis, Missouri.

The author has brought this sixth edition up to date by including spinal anesthesia. It is a dependable guide that

(Continued on Page 17)

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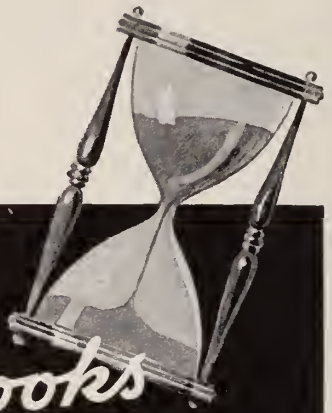

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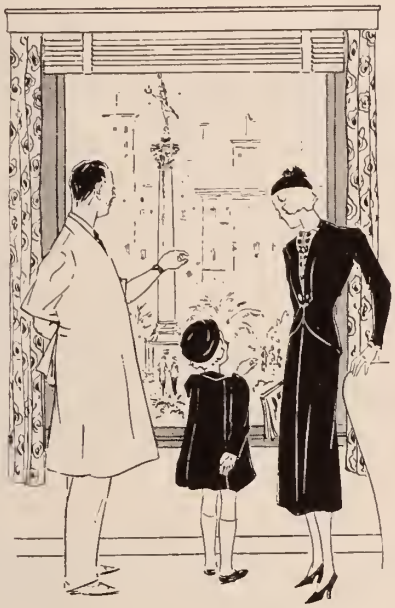

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BOOK REVIEWS

(Continued from Page 15)

will be quite helpful to those employing local anesthesia. Technic is well described, indications cited and difficulties are pointed out. All in all it conforms to accepted and standard principles.

Physical Diagnosis. Don C. Sutton, M. S., M. D., Northwestern University. Cloth. Pp. 495. Price, $5. C. V. Mosby Company, St. Louis, Missouri.

A satisfactory text for students, internes and residents. It cannot supplant other more descriptive and comprehensive monographs. Well arranged with some very excellent illustrations.

Dextrose Therapy. E. Martin, Sc. D. Cloth. Pp. 451. Price, $3. Paul B. Hoeber, Inc.

This survey of the literature, 1900-1936, on experimental and clinical studies applicable to medicine and surgery is preceded with forewords by W. N. Haworth and Bernard Fantus. Fantus declares that dextrose deserves a monograph that is thorough, concise, scholarly, practical, authoritative and not pedantic. He concludes that this text meets all these specifications.

This reviewer is in agreement with this appraisal and recommends this book as a valuable addition to one's library.

Health Education of the Public. A Practical Manual of Technic. By W. W. Bauer, B. S., M. D., Director, Bureau of Health and Public Instruction, American Medical Association; Associate Editor of Hygeia, The Health Magazine, and Thomas G. Hull, Ph. D., Director, Scientific Exhibit, American Medical Association; Associate Professor of Bacteriology, University of Illinois, College of Medicine. Pp. 227 with thirty-nine illustrations. Philadelphia and London: W. B. Saunders Company, 1937. Cloth. Price, $2.50 net.

The physician or worker in the field of public health will find here opportunity to accumulate in a short time knowledge which otherwise might be gained only with great difficulty and at considerable expense by the old system of trial and error. Approval is given to this statement in the foreword.

Bauer and Hull, so well known to organizations, is a dependable attest to justify commending this mint of information.

Clinical Allergy. By Louis Tuft, M. D., Chief of Clinic of Allergy and Applied Immunology, Temple University Hospital; Associate in Immunology, Temple University School of Medicine; Director of Laboratories, Pennsylvania Department of Health, Philadelphia. Introduction by John A. Kolmer, M. D., Dr. P. H., D. Sc., LL. D., L.H.D., Professor of Medicine, Temple University; Director of Research Institute of Cutaneous Medicine, Philadelphia. Pp. 711 with eighty-two illustrations. Philadelphia and London: W. B. Saunders Company, 1937. Cloth, $8 net.

Allergy is a perplexing subject in medicine. There is an increasing appreciation of the fact that allergy is responsible for many diseases and symptom complexes that relate to every specialty and practitioner.

This text is written for the general practitioner and not for the expert allergist. It is simple and direct and presents accepted facts void of speculation. Fundamental principles, etiology, clinical manifestations, relation to specialties constitute the four sections of the book. The appendix imparts laboratory methods, diet lists, recipes, etc. A satisfactory list of references is included.

Practitioners will not regret placing this text in their libraries for frequent study and reference.

Short Wave Diathermy. By Tibor de Cholnoky, New York Post-Graduate School. Cloth. Pp. 310. Price, $4. Columbia University Press, New York.

An outline of the principles and application of the therapeutic use of the short wave. Commended for resistance to "cure all" claims so often made by manufacturers and enthusiasts. Should be helpful to those who wish to employ this modality in a scientific manner.

Use Your Own Eyes. By Dr. W. B. MacCracken, page 236; published by the author, Berkeley, California, 1937 (The Professional Press).

The 236-page volume, "Use Your Own Eyes," is an interesting document, apparently written in all sincerity and with a certain naïve vehemence that should make of it a textbook for the "lunatic fringe." It is dedicated to the memory of Dr. W. H. Bates, whom Paul de Kruif attempted to render immortal, but only succeeded in making rich. The author was born in 1869 and was graduated from the New York University Medical Col-

(Continued on Page 19)

SUMMER!

Summer days show a marked increase in accidental injuries. The vacationist, the farmer, the child at play may all suffer wounds contaminated with spores of tetanus and gas gangrene-producing bacteria.

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BOOK REVIEWS

(Continued from Page 17)

lege in 1893. The institution was apparently not a hotbed, at the time, of psysiological research.

Much of the material is derived from the author's experiences with his own eye, and the experiences seem a trifle unhappy, at least in his earlier years. He understands what has happened to his eyes less well than he might. His chapter on "Palming" is a masterpiece of auto-suggestion and self hypnosis.

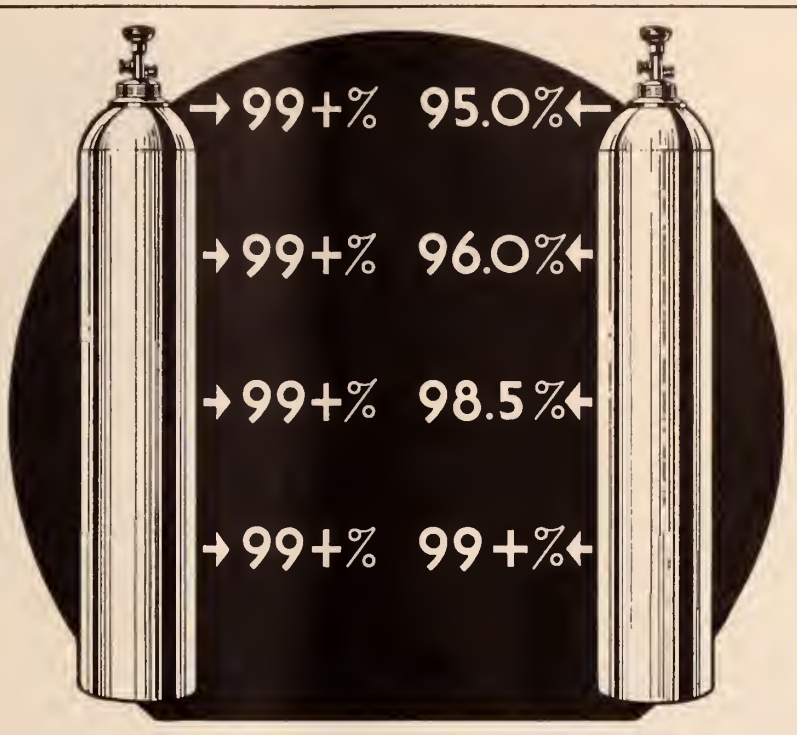
He is quite wrong about the enthusiasm with which "a large percentage of the population of cities" embrace the "national habit of wearing glasses." Except for an occasional crack-pot, no one wears glasses but from bitter necessity, or because of a misconception of their function. His distaste for "artificial lenses" reminds one of the aversion that some people possess to "artificial" clothing. All primitive societies have demonstrated their ability to get along without either lenses or trousers. The Freudians have a name for moderns who desire to do that sort of thing. It is called regression, and such regressions are not altogether compatible with life in modern society.

Much of the author's confusion arises from his lack of understanding of the function of "artificial" lenses. No one conversant with the subject expects them to "cure" anything except symptoms, and then only while they are in use. They are as powerless to effect fundamental anatomical or functional changes in the eyes as is the mumbo-jumbo invented by Doctor Bates, but they enable a certain number of people to get a certain amount of "artificial" work done, which would be difficult or impossible without this "artificial" aid.

The remarkable "cures" related by the author, which enable some people to discard "artificial" lenses, represent usually one of two things: Either in the process of growth and development the eyes of the patient approach near enough to the theoretically normal so that he can discard glasses, or an error in judgment has been made on the part of the prescriber of the "artificial" lenses (they are sometimes self-prescribed), at the time they were adopted. There are many poorly qualified, although often sincere and assiduous, persons who sell glasses to a group of suggestible and credulous individuals. This group is large, particularly in the United States, and to those who compose it the ritual of "palming," or the mysteries of "eye exercises" appeal more strongly than the simple statement that "the glasses which you have been wearing are too near to blanks to make any real difference to your eyes." There is an occasional sound idea in this book, mixed in with this nonsense; as, for example, the writer's remarks on sunglasses, although not those on sun-gazing.

This book has an index, but is not illustrated.

The New is the child of the Old.—Leon J. Richardson.



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TWENTY-FIVE YEARS AGO

(Continued from Text Page 144)

Angeles] in November, 1910, and the history of the disease up to April 1, 1911, was presented with the available statistics in an article published by myself in July of that year. . . .

* * *

From an article on "Clinical Symptoms of Alcoholism and its Treatment." By R. E. Bering, M. D., San Francisco.—Until within recent years but little interest has been taken in this subject, in consequence of which but meager information can be obtained from medical teaching or medical books. No organized attempt or scientific effort has been made to treat alcoholism with any degree of hope for a permanent recovery. But, as in other branches of medicine, much thought and study are now being given to the treatment of this disease. . . .

(Continued on Next Page)

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"Conservative Treatment of the Nasal Sinuses," N. Y. State Jr. Med., Jan. 15, 1937, by Harold Hays, M. D. "Sinusitis—Shall Treatment be Surgical or Non-Surgical," Eye, Ear, Nose and Throat Monthly, Sept., 1936, by Irving Voorhees, M. D.

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TWENTY-FIVE YEARS AGO

(Continued from Preceding Page)

From an article on "A Case of Acromegaly with Thrombosis and Embolism." By W. B. Coffey, M. D., and W. T. Cummins, M. D., San Francisco.—History: Mr. A. C. S., aged 39, a clerk, was admitted to the Southern Pacific Hospital on November 2, 1911. . . . Shortly before admission a medical friend had diagnosed the condition as one of acromegaly based only upon anatomical changes, there having been no subjective signs of hypophyseal disease. The condition for which he entered the hospital was hemorrhoids and this had appeared one year before with blood-streaked stools associated with which there developed constant dull pains over the hips. . . .

Finally, in the light of investigation upon the alleged thrombokinetic action of organic tissues, one should consider the possibility of thrombosis in operations upon highly vascular and varicosed tissues, especially when coincidently there is disease of an organ which may bring about an increase in calcium content of the blood.

* * *

From an article on "Ocular Disturbances Caused by the Cinematograph." By Morton E. Hart, M. D., San Francisco.—Ocular disturbances due to the cinematograph have up to the present time, received practically no mention in medical literature. It seems strange that this should be the case, for no doubt it has fallen to the lot of almost every oculist, particularly in the large cities to have seen and treated many patients suffering from this new disease. And there are very good reasons that there should be ocular disturbances from this new plaything of the people. . . .

* * *

OBITUARIES:

William L. Maupin, M. D.—Dr. William L. Maupin was born in Columbia, Mo., April 17, 1839. He was educated at William Jewel College in Liberty, Mo., and afterwards took up the study of medicine in Columbia, Mo. . . .

Chester Rowell, M. D.—Dr. Chester Rowell was born in 1844 and died May 23, 1912. He graduated in medicine from the University of the Pacific in 1870 and settled in Fresno, where he practiced medicine up to the time of his death, at which time he was Mayor of Fresno. No more fitting or descriptive obituary could be written than that published in the Fresno *Republican* by J. W. Short, which, in part, here follows: . . .

The first time I saw Doctor Rowell he was standing by the desk in his office, engaged in a warm argument. The favorite theme of politics which the word argument suggests goes wide of the fact. The Doctor sometimes argued on other subjects.

"I know, Manuel," he was saying to the weather-stained and dilapidated foreigner who spoke brokenly but with Latin fervor for the affirmative. "I know I went to see you a good many times, and the wife and the babies, but it's all in the day's work. Sometime when you get the mortgage off the land and the bills all paid you may give me something, but not now. You're not able to work much yet, and the wife and children will need more clothes this winter. No, sir, you can't give anything now."

Manuel raised his hands and voice again in hopeless protest, but the uplifted finger and decisive shake of the head which met his broken protest left no room for further argument, and he shuffled out the door and down the stairs. When he passed me there were tears in his eyes and on his face.

I did not know it then, but the incident had told me the history of Doctor Rowell's life. It was the history in point of time and labor of nearly forty years of busy life. . . .

And so there will be wider, truer sorrow in Fresno than if any other one had passed away. For he is gone who respected wealth but loved the poor, who admired success but helped those who failed, whose humanity was broad enough and heart large enough to reach us all.

(Continued on Page 22)

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Heinz Strained Foods bear the coveted Seal of Acceptance of the American Medical Association's Council on Foods. And remember, for your added protection they carry the "57" Seal of Quality—symbol of the world's finest pure food products for almost seven decades.

Prescribe Heinz Strained Foods—*by name*—for the infants and invalids in your care.

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TWENTY-FIVE YEARS AGO

(Continued from Page 20)

Reasonable Protest; Heat It.—To the Editor of the State Journal: On behalf of those members of the medical profession who, like myself, are devoting themselves to laboratory work, I wish to present a protest against the practice prevailing among many physicians of sending their patients to purely commercial laboratories for various tests and examinations. No ethical physician sends his patient to an optician when he wishes him tested for glasses, nor does the eye-specialist refer his physically ill myopic to a druggist for advice or treatment to relieve his symptoms. Even the orthopedist usually takes the measurements of his patient's limb himself when about to order a brace or other purely mechanical apparatus to correct a deformity, instead of entrusting it entirely to the trained and thoroughly skilled mechanic who is to make the apparatus. . . .

BOARD OF MEDICAL EXAMINERS

(Continued from Text Page 144)

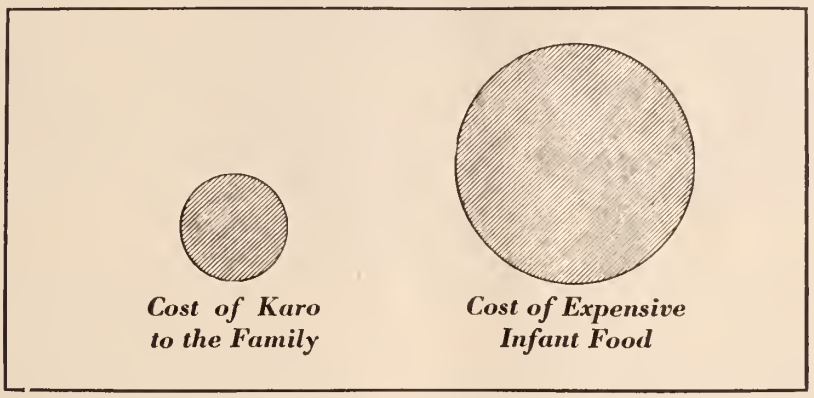
apartments at 1115 and 1117 McAllister Street, and 431 Ashbury Street. At the Ashbury Street address equipment was seized which, police said, pointed to an illegal operation practice. The woman who died was Mrs. Florence Alves, thirty-six, of Redwood City, mother of two children. Her sister testified at a coroner's inquest that she took Mrs. Alves to 1115 McAllister Street to arrange for the operation." (San Francisco *Examiner*, June 27, 1937.) (Previous entry, June, 1937.)

"Investigation was underway today in San Francisco of serious irregularities which last week allegedly marked the trial and conviction of four abortionists in connection with a fatal illegal operation on Mrs. Florence Alves, thirty-six, of Redwood City. Inspiration of the probe

(Continued on Page 24)

Help the Family Budget by Prescribing KARO

FOR INFANT FEEDING



ANY prescribed food which abundantly fulfills the baby's needs—and is available at low cost—is a boon to the mother, a blessing to the father. And the baby thrives! Karo Syrup is an effective carbohydrate. It is well-tolerated, practically non-fermentable, quickly utilized. The low price of Karo is based on its cost — not on its high value as an ideal infant food.

★ **Infant feeding practice is primarily the concern of the physician, therefore, Karo for infant feeding is advertised to the Medical Profession exclusively.**

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• The Hydropathic Department devoted to the treatment of general diseases excluding surgical and acute infectious cases. Special attention given functional and organic nervous diseases. A well equipped clinical laboratory and modern X-ray Department are in use for diagnosis.

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GENERAL FEATURES

1. Climatic advantages not excelled in United States. Beautiful grounds and attractive surrounding country.
2. Indoor and outdoor gymnastics under the charge of an athletic director. An excellent Occupational Department.
3. A resident medical staff. A large and well trained nursing staff so that each patient is given careful individual attention.

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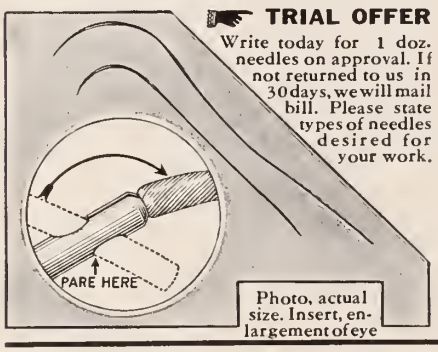

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Economical! Use at a fraction of the cost of non-rethreadable types. Perfection proved by four years' use, leading surgeons and hospitals everywhere. Securely holds a single suture. Reduces trauma. Fully patented. ☆ Grüss needles are made to quality and precision standards of finest surgical instruments. Types and sizes for all needs, all sutures. *Write for full particulars.* Manufactured exclusively by . . .

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163 SECOND STREET, SAN FRANCISCO, CALIFORNIA

BOARD OF MEDICAL EXAMINERS

(Continued from Page 22)

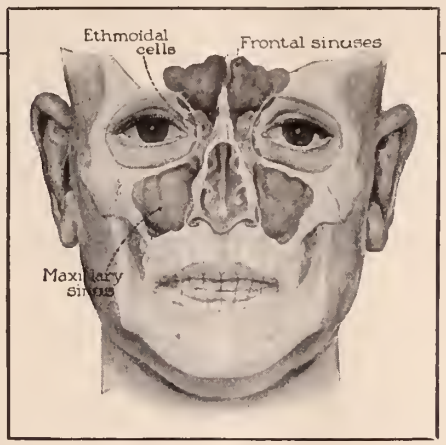
sprung from reports of several jurors that they had been approached during the trial by a young man who attempted to press for acquittal of the accused and condemned 'unscrupulous tactics' of police in laying the trap that led to arrest of the quartet. A woman juror was invited to luncheon by this man, but curtly refused. Mysterious telephone calls were also received by the jurors, they said. . . . The convicted quartet, Minerva Geddes, Mr. and Mrs. Rudolph Zoffel, and Mrs. Eland Swinell (Swindell), have asked for probation. They will appear for sentence on August 5." (Redwood City *Tribune*, June 30, 1937.)

"Fake accident claim irregularities have become so bold of late years in the City of New York that the District Attorney has arranged to set up a permanent bureau to handle accident fraud cases. Need for a permanent bureau was revealed by the activities of a special bureau, which for some months past has been notably successful in convicting crooked lawyers, doctors, runners, and fake injury claimants. Prior to the creation of the special bureau 73 per cent of cases on the calendar of the Supreme Court of New York were personal injury suits. Within a few months after this special bureau began to function, personal claims filed in the city court dropped nearly 30 per cent and already a marked decrease has taken place in insurance rates. Cities throughout the nation may profitably follow the example set by New York. The accident racketeer is a parasite. . . . Hearty coöperation between the public, the courts, the police and the insurance industry can ultimately eradicate the fake accident racketeer. The sooner his demise, the better." (San Mateo *Times*, June 12, 1937.)

"With faltering hand, aided by Municipal Judge Thomas M. Foley, Mrs. Elizabeth Sowers, forty-six, signed a complaint today in St. John's Hospital charging Dr. Max Hickok with allegedly performing an illegal operation.

(Continued on Page 26)

NEO-SYNEPHRIN
HYDROCHLORIDE
(levo-meta-methylaminoethanolphenol hydrochloride)



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Relieves Hay Fever Congestion

The hay fever sufferer demands one thing: relief from the nasal engorgement which obstructs his breathing and otherwise contributes to his discomfort.

Local application of Neo-Synephrin provides the desired relief and presents a number of definite advantages, namely:

1. **No sting**
2. **More sustained action than epinephrine or ephedrine**
3. **Less toxic in therapeutic dosage than epinephrine or ephedrine**
4. **So stable that it may be sterilized by boiling**
5. **In the doses recommended Neo-Synephrin usually does not produce nervousness or insomnia.**

SOLUTION

EMULSION

JELLY

DOSAGE FORMS:

NEO-SYNEPHRIN HYDROCHLORIDE EMULSION, - ¼% (1-oz. bottle with dropper)

NEO-SYNEPHRIN HYDROCHLORIDE SOLUTION, ¼% for dropper or spray; 1% for resistant cases (1-oz. bottle)

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TO THE DOCTOR'S WIFE

•

It is our conviction that cosmetics should be selected to suit the individual's requirements. We cater exclusively to you, the individual. Our representatives are trained to help you select suitable beauty preparations and to show you how to apply them.

It is only sensible to realize that a truly beautiful skin is first of all a healthy skin and secondly a well-cared-for skin.

Cosmetics serve to enhance your appearance, to present you at your best. In this regard it is well to bear in mind that a natural appearance is by far the most charming.

Carefully selected, and artistically applied, make-up preparations lose their identity as cosmetics and become an indistinguishable part of your personality.

We want it clearly understood that we in no way undertake to treat skin disorders. If you are thus afflicted we had rather that you not use our preparations without the consent of a skin specialist. Our formulary is available to the medical profession.

A card addressed to us will be referred to the manager of the territory in which you reside. It is our pleasure to be at your service.—LUZIER'S, Inc.

Beauty Preparations by Luzier

KANSAS CITY, MISSOURI

BOARD OF MEDICAL EXAMINERS

(Continued from Page 24)

Aided by a nurse, as Judge Foley moved his court to the hospital, Mrs. Sowers signed the complaint against Doctor Hickok, a chiropractor, and Rosalie Lloyd, a nurse, who assertedly aided him. Weak from an emergency operation performed to save her life, Mrs. Sowers of 3766 Loma Vista Avenue, Oakland, signed the complaint as Judge Foley held it for her. Mrs. Sowers, it was stated, had previously been given a sedative to prepare her for the ordeal, hospital attaches said. Doctor Hickok, who has been under investigation since last March, is scheduled to appear before Judge Foley, Saturday. The son of the notorious 'Doctor' Galen R. Hickok, once operator of mysterious Salada Beach 'abortion castle,' was arrested yesterday on advices from a hospital where a woman, assertedly his patient, was recovering from an emergency operation. Two operating tables and surgical instruments, unlawful for a chiropractor's use, were found at the younger Hickok's office at 101 Post Street. The elder Hickok served a term in San Quentin following the Salada Beach exposé in 1920, when three young women, one a fourteen year old girl, were found convalescing from illegal operations." (San Francisco *Call-Bulletin*, June 16, 1937.) "Curses ringing in his ears, Dr. Max Hickok, alleged abortionist, was led from the court room of Municipal Judge Frank W. Dunn yesterday, bound over to the Superior Court on charges of murder. The dapper chiropractor was held under bond of $50,000, cash bail of $25,000, on charges that he caused the death of Mrs. William Sowers in the performance of an abortion. . . . Sowers told of visiting Hickok's office with his forty-six-year-old wife, of making arrangements for an abortion, of refusing to sign a 'release' presented by the chiropractor. 'Why wouldn't you sign it?' asked Assistant District Attorney John J. McMahon. 'Because there wasn't a word of truth in it,' replied the husband. 'It was undated. It didn't even have the name of the city in it'." (San Francisco *Examiner*, July 3, 1937.)

"E. B. Hartman's petition to the State Supreme Court for a writ of habeas corpus in which he seeks to escape half of his 180-day county jail term, will be submitted to the high tribunal on briefs, District Attorney Stanley Mussell said yesterday. Hartman, former San Bernardino chiropractor, was released from jail last March on bail of $200 pending decision of the Supreme Court. He was convicted last January of two charges of violating the State Medical Practice Act. He served ninety days of his sentence and then filed a writ, seeking to escape the remainder of his term on grounds the second count on which he was convicted was unconstitutional. Hartman has carried on a long legal battle. He appealed the case first to the Superior Court, then to the Appellate Court and attempted twice to take the case before the Superior Court before his petition for habeas corpus was acted upon." (San Bernardino *Sun*, June 10, 1937.) (Previous entries July, September, November, 1935; January, March, April, 1936.)

"Allural, Inc., a Sacramento eye lotion manufacturing company, today was restrained in an order issued by the Federal Trade Commission from what the commission termed 'false and misleading representations in advertising matter and radio broadcasts.' 'Findings are,' the order reads, 'that the use of Allura will not accomplish the results claimed, that this preparation contains nothing of medical value in treating eye diseases and that its only possible value would be equivalent to that of ordinary normal salt solution. Darrold DeCoe, a local attorney, is president of the company. R. L. Machado is vice-president and treasurer. DeCoe said that the hearing was held several months ago and that his corporation had agreed to withdraw its objectionable advertising matter and radio broadcasts." (Sacramento *Bee*, June 15, 1937.)

"Mrs. Ann Fisher, San Francisco nurse, who was arrested outside of Nevada City, Tuesday afternoon, near where her husband was engaged in prospecting, did not plead yesterday to charges of assisting Dr. Claude C. Long and wife, Isabelle, in the death of Mrs. Genevieve Argan-bright, twenty-six, as the result of an illegal operation on May 19. Doctor Long and his wife pleaded not guilty to the murder charge. Deputy District Attorney John McMahon and Officer Harry Husted of the San Francisco Police De-

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Pathology
DAVID A. WOOD, M.D., Director of Laboratory

partment made the Fisher arrest in Nevada County.... Mrs. Arganbright, mother of a five-year-old child, was found dead by an undertaker's assistant in a flat allegedly used by Doctor Long. A coroner's inquest held death resulted from an abortion and charged the physician with murder." (Grass Valley *Union*, June 10, 1937.)

"Accused of 'setting a fractured arm without an unrevoked certificate,' Dr. Louis LaVine, chiropractor, pleaded not guilty in Redwood Township Justice Court here today and asked for a jury trial. . . . Doctor LaVine is at liberty under $100 bail which he posted yesterday when brought before Judge Bell for preliminary hearing. . . . The chiropractor is charged in a complaint sworn to by Mrs. Frances Wallace of this city with setting her arm on February 24, in violation of Section 17 of the Medical Act." (San Jose *Mercury-Herald*, June 11, 1937.)

"Found guilty of examining and treating Mrs. Leona Combe of San Bruno without a doctor's license, Peter Borly, forty-five, San Francisco Russian war veteran, must pay a $100 fine before Monday, Judge Wade H. Clay ruled today in Daly City. He fined Borly $100 on each of two counts, but suspended $50 from each of the fines. Borly's counsel declared that an appeal would be taken. . . ." (Redwood City *Tribune*, June 24, 1937.)

"D. Y. Lee, Chinese herb doctor, of 337 Pacific Avenue, pleaded not guilty and asked for a jury trial, when arraigned before Municipal Judge Wilbur F. Downs yesterday on a charge of violation of the State Medical Practice Act. Bail was set at $500. Lee was arrested Tuesday by State Investigator W. N. Anderson and Detective W. J. Sibley on complaint that Lee prescribed medicine and herbs to Anderson's wife." (Long Beach *Sun*, June 24, 1937.)

"Mrs. Laura Miner, thirty-eight-year-old former nurse and the mother of two San Diego school children, scribbled meaningless drawings upon her counsel table today, to hide her emotion as Justice Joe L. Shell ordered her held for Superior Court trial on charges of murder and of performing an illegal operation. . . . Justice Shell said he believed the State had shown sufficient evidence for trial of the charge that Mrs. Miner, on April 14, had performed an illegal operation upon Mrs. Lauretta Hazel Reese, twenty-one-year-old Navy man's wife. He further held there was evidence that the operation had caused an infection of the blood stream which assertedly brought death to Mrs. Reese April 28 in county hospital. Bond for Mrs. Miner on the two charges, aggregating $4,000, was left unchanged." (San Diego *Sun*, June 14, 1937.)

"All criminal action against Dr. R. A. Behrend, arrested May 21, last, at Riverside on narcotic charges, has been abandoned, it was learned yesterday, and the physician, after having been found mentally disordered by Superior Judge Bullock, has been paroled to the psychopathic parole officer and ordered confined in a private sanitarium. . . . There is no professional connection or relationship between Dr. R. Allen Behrendt, the Los Angeles physician, and R. A. Behrend, the man arrested in Riverside." (Los Angeles *Times*, June 18, 1937.)

According to an article by George Gallup, Director, Institute of Public Opinion, printed in the San Francisco *News*, June 25, 1937, said institute has for nineteen months been engaged in polling voters of this country on national issues. It is asserted that to the question, "Should the distribution of information on birth control be made legal?" 70 per cent of the voters polled the answer "Yes." To the question, "Would you favor a government bureau that would distribute information concerning venereal diseases?" 90 per cent answered "Yes."

"That synthetic sun bath which Mrs. Maxine Tremine, young housewife, took last December 30, was not to her liking. So much so that she went to court about it, suing Dr. C. B. Lane, chiropractor, for $25,000 damages. Mrs. Tremaine, represented by attorneys S. S. Hahn and W. O. Graf, alleged that Doctor Lane treated her for a cold with

(Continued on Next Page)

When Steers Had Long Horns

THE medicinal value of the glands of internal secretion was not recognized.

But times have changed, as well as cattle. Now, the therapeutic value of certain gland products is definitely established and each year adds to our knowledge in this important field of therapeutics.

To the physician prescribing gland products we urge specification of "Wilson," because it connotes a product made at the source of supply from fresh glands, processed promptly, with the aim of conserving maximum hormone activity, in a laboratory devoted exclusively to the endocrine field.

"This mark THE WILSON LABORATORIES your guarantee"

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STANDARDIZED ANIMAL DERIVATIVES, LIGATURES and DIGESTIVE FERMENTS

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

A DOCTOR SAYS—

"Your attention to all minute details in preparation for my defense assured me and gave me complete confidence that all would terminate favorably. I continue with the same confidence in the Medical Protective Company as I did twenty-two years ago when I graduated."

THE MEDICAL PROTECTIVE COMPANY

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WHEATON, ILLINOIS

BOARD OF MEDICAL EXAMINERS

(Continued from Preceding Page)

a therapy lamp and that during the treatment the lamp exploded and severely burned her back. Doctor Lane denied negligence. Decision is being reserved by Superior Judge Myron Westover, who heard the case." (Los Angeles *Examiner*, June 24, 1937.)

"Frank Galloway, who assertedly promised elderly persons a sure cure for cancer, was arrested today for assertedly violating the State Medical Practice Act. Galloway, sixty-two-year-old laborer, was arrested by Detective Whitney after he assertedly told Edward L. Gates, eighty-two, retired railroad worker, that he could cure a cancer of the hip after a series of weekly treatments. Galloway's cancer medicine, Whitney said, consisted of rubbing alcohol, ether and a harmless black salve." (Los Angeles *Times*, July 2, 1937.)

Investigation reports relate that Buren L. Corley, licensed Chiropractor, has been charged in the Municipal Courts of San Francisco with violation of Section 15 of the Chiropractic Act.

"Dr. Ralph Waldo Wagner, Saugus sportsman and physician, was booked at the county jail last night on suspicion of issuing four worthless checks totaling $505.64. 'I have been framed by enemies,' Doctor Wagner declared last night. Three of the asserted fictitious checks were cashed by Burbank merchants. The sportsman-physician was booked without bail at the county jail pending transfer to the city jail and arraignment. (Los Angeles *Examiner*, July 3, 1937.) Ralph Waldo Wagner does not appear in the records of the Board of Medical Examiners, nor in the American Medical Association directory.

"Howard L. Musick, well-to-do medicine dealer, must pay his seventy-two-year-old mother $75 a month or go to jail for 180 days. Municipal Judge Arthur S. Guerin so ruled yesterday when Musick went before him for sentence

APPROVED CLINICAL PATHOLOGISTS

American Medical Association Essentials for An Approved Clinical Pathologist

An approved clinical pathologist should be a licensed graduate of medicine. He shall have specialized in clinical pathology, bacteriology, pathology, chemistry, and other allied subjects for at least three years, and he should be reasonably familiar with the manifestations of disease in the body. The director of a clinical laboratory shall be on full time or have definite hours of attendance, devoting the major part of his time to this specialty. A clinical laboratory is an institution organized for the practical application of the fundamental sciences by the use of specialized apparatus, equipment and methods, for the purpose of ascertaining the presence, nature, source, and progress of disease in the human body.

The following Clinical Pathologists directing private laboratories in California are approved by the Council on Medical Education and Hospitals of the American Medical Association:

Clinical Laboratory of Drs. W. V. Brem, A. H. Zeiler, Roy W. Hammack and G. D. Maner, 657 So. Westlake Avenue, Los Angeles, California.

Zera E. Bolin, M. D., 490 Post Street, San Francisco, California. ✓ ✓ ✓

These laboratories use standard methods and are fully equipped to make all clinical examinations of recognized value in: Tissue Pathology, Bacteriology, Hematology, Serology, Bio-Chemistry, Kolmer Wassermanns, Kahn test, Medico-legal, Basal metabolism, Blood chemistry, Hormone Test for Pregnancy, Parasitology, Cardiology, Autogenous vaccines, etc.

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after being found guilty by a jury last week of failing to provide for Mrs. Maggie Musick. Musick first appeared for sentence Tuesday, but at that time Judge Guerin declared he was intoxicated and ordered him to jail for five days for contempt of court." (Los Angeles *Examiner*, July 3, 1937.) (Previous entry February, 1929.)

Continuous Suture Surgical Needles.—A California industry in the surgical field which has attained international distribution is represented in the advertising columns of this issue: The Gruss Surgical Manufacturing Company of San Francisco.

Established by Dr. F. J. Gruss, and his son, F. K. Gruss, inventor and patentor of a continuous-suture surgical needle, the company reports a constantly growing demand for its products from leading hospitals and surgeons throughout the world.

The principal feature of the Gruss Needle, which is available in all standard types and sizes, is that it is rethreadable, emphasizing its economy. When threaded, the needle becomes practically one with the suture, this "continuous" feature tending to reduce trauma to the minimum.

The company offers to send one dozen needles on trial to any hospital or surgeon.

Court Upholds Government Stand on Gauze Bandages: Product Labeled "Sterilized" and "For Surgical Use" Must Be Sterile.—The stand of the Federal Government that gauze bandages, represented as "sterile" or "sterilized," should in fact be free from germs when purchased by the ultimate consumer, has been upheld in court. The Federal Court for the Southern District of New York (New York City), has decided that the bandages of the Bay Company, Bridgeport, Conn., were drugs, subject to regulation under the Federal Food and Drugs Act, and that because they were contaminated with bacteria they were both adulterated and misbranded.

When the bandages were seized by Federal authorities, counsel for the claimant contended that such articles were not "drugs" within the definition of that term as used in the Federal Food and Drugs Act, and that, therefore, the law does not apply. The definition classifies as a drug "any substance or mixture of substances intended to be used for the cure, mitigation, or prevention of disease."

The Government presented evidence to show that gauze bandages are used for packing and dressing wounds, draining infected wounds, packing to stop bleeding, and various other similar uses. The court held that gauze bandages rightly come within the statutory definition of "drugs." Especially is this true, said the court, of a bandage labeled "Prepared for Surgical Use," as in this case.

The decision, which judicially defines a bandage as a drug, gives support to the campaign carried on during the past year against unsterile articles of this sort masquerading as sterilized. During that period there have been seized on instructions of the Food and Drug Administration of the United States Department of Agriculture, 5,500 packages of absorbent cotton, 6,800 packages of bandages, 28,000 adhesive compresses, ninety packages of adhesive plaster, thirty-five first-aid kits containing unsterile cotton and bandage, six thousand gauze pads, and four boxes of unsterile surgical sutures.

Food and Drug Act Seizures.—Seizures under the Food and Drugs Act recently involved 113 gallons of maple syrup contaminated with lead from the buckets in which the maple sap was collected, and 862 shipping cases of raisins retaining enough hydrocyanic acid gas (a fumigant), to make them injurious to health. This month will see the completion of the cleanup started when the Food and Drug Administration discovered that shippers were resorting to heavy and excessive fumigating with the deadly chemical during delays incident to the recent maritime strike on the Pacific Coast.

Dirty crabmeat led again in the number of actions instituted, the current report continues, 1,130 pounds being seized. Other seafoods seized were: Nineteen cases of decomposed dried codfish; eighty-four cases of partially decomposed canned shrimp, twelve cases of shrimp partially decomposed, slack filled and short weight, two cases of shrimp partially decomposed and slack filled, and twenty-

(Continued on Next Page)

Bequest Forms: Unto the California Medical Association*

FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I hereby give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of $——— to be known as the ——— Gift, to be used and expended by said corporation for scientific, educational, or hospital purposes.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of $———, to be held as a fund, to be known as the [here insert name desired] Fund, the principal whereof shall from time to time be invested to the best advantage compatible with safety, and the income whereof shall be used and applied for scientific, educational, or hospital purposes.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR BEQUEST OF PERSONAL PROPERTY

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used and applied for scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California, to aid and further its scientific, educational, and hospital purposes, and to be known as the ——— Gift, the following described real property situate in the County of ———, State of California, and more particularly described as follows, to wit:

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used for and applied to the support and maintenance of scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

* These Bequest Forms were discussed editorially in CALIFORNIA AND WESTERN MEDICINE, for March, 1936, p. 145, and June, 1936, p. 460.

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(Continued from Preceding Page)

seven cases on which the sole charge was of slack fill, and 162 cases of canned salmon, also slack filled.

A large lot of pecans in shell, totaling 108,100 pounds, damaged by smoke, was also seized and destroyed. The remainder of seizures on grounds of decomposition or dirt involved four hundred pounds of rancid and decomposed pecan meats, 1,250 pounds of moldy and insect-infested sugared dates, seventeen cases of decomposed canned pimientos, 942 cases of canned beets infected with black rot, sixty-five cases of canned cherries containing maggots, 684 cases of moldy tomato catsup, and 3,154 of moldy tomato puree, 172 cases of catsup containing worm particles and short in weight, and seventy-one cases of tomato puree containing worm particles.

One lot of tomato puree (forty-two cases), insufficiently concentrated to warrant the designation "puree," and 385 bottles of so-called catsup found to contain apple pulp and artificial color, and to be short weight, were seized.

Other Food Seizures.—Misgrading and other economic misrepresentations account for the remainder of food seizures of the past month, under the pure food law: Four hundred and sixty jars of raspberry preserves low in fruit content; 250 cases of canned cherries, sub-standard because packed in water, without the appropriate label notification, and forty-one cases sub-standard because of the presence of excess pits; ninety-five cases of canned corn labeled "fancy," but found to be two grades lower; 960 sacks of potatoes below the grade claimed; 1,500 pounds of butter containing less than 80 per cent butterfat, and 1,171 pounds of short-weight butter; sixty-six cans of short-volume olive oil, and thirteen gallons of so-called olive oil for which cottonseed oil had been substituted; 1,710 pounds of frozen egg "yolk" containing 26 per cent egg white; forty-eight packages of "home made maple butter compound" found to consist of glucose, starch, sugar, and skim milk, with little or no maple sugar, and a total of 4,080 bottles of "lemon," "orange," "lime," and other "fruit" preparations, fruit "ades" and "mixers,"

(Continued in Back Advertising Section, Page 34)

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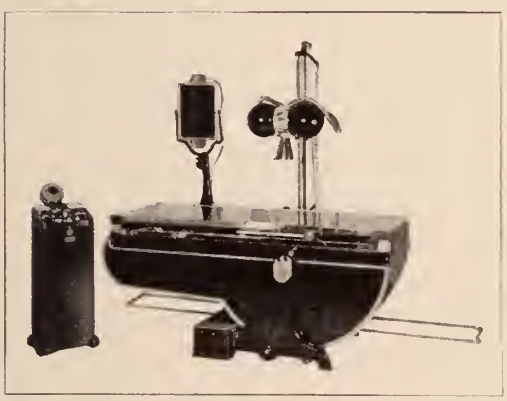

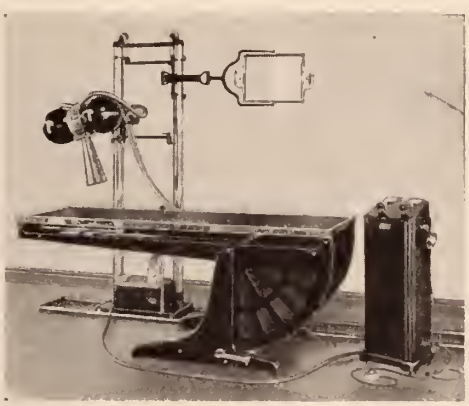

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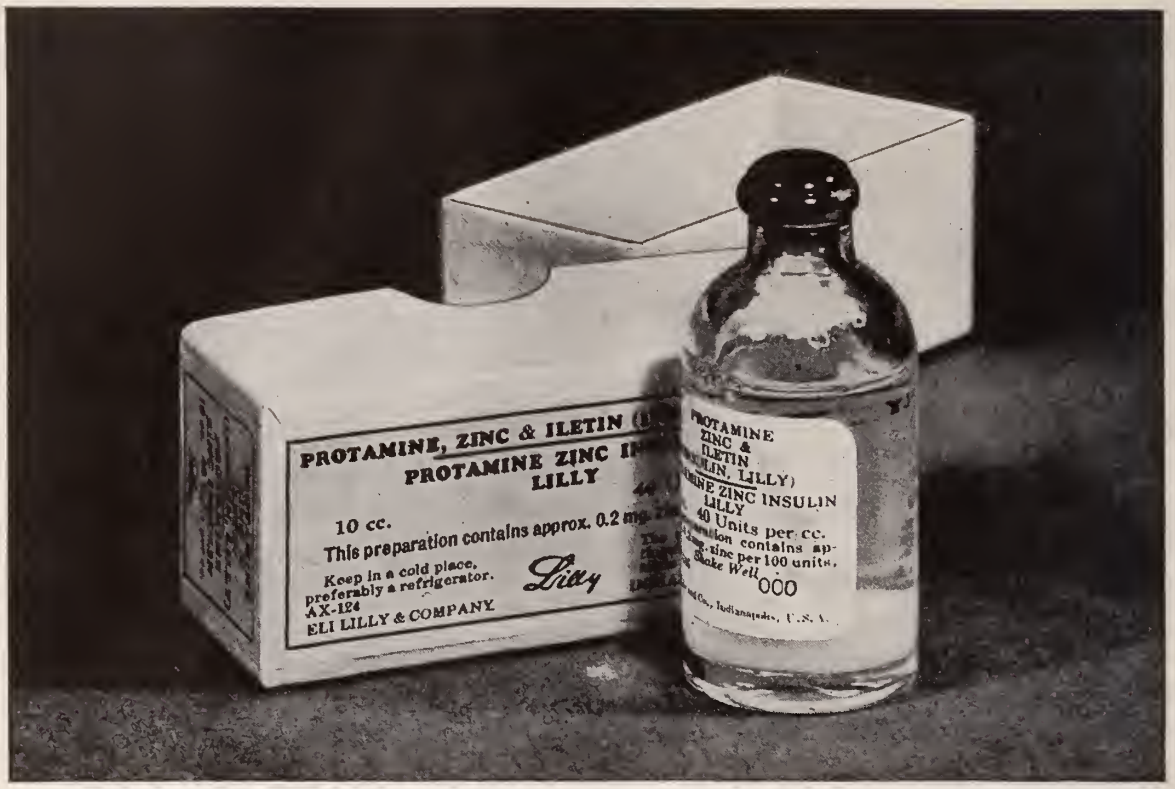

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CALIFORNIA AND WESTERN MEDICINE

OFFICIAL JOURNAL OF THE CALIFORNIA MEDICAL ASSOCIATION

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EDITOR . . . . . GEORGE H. KRESS

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BUSINESS MANAGER . FREDERICK C. WARNSHUIS

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Change of Address.—Request for change of address should give both the old and the new address. No change in any address on the mailing list will be made until such change is requested by county secretaries or by the member concerned.

Responsibility for Statements and Conclusions in Original Articles.—Authors are responsible for all statements, conclusions and methods of presenting their subjects. These may or may not be in harmony with the views of the editorial staff. It is aimed to permit authors to have as wide latitude as the general policy of the Journal and the demands on its space may permit. The right to reduce or reject any article is always reserved.

Contributions—Exclusive Publication.—Articles are accepted for publication on condition that they are contributed solely to this Journal. New copy must be sent to the editorial office not later than the fifteenth day of the month preceding the date of publication.

Contributions—Length of Articles: Extra Costs.—Original articles should not exceed three and one-half pages in length. Authors who wish articles of greater length printed must pay extra costs involved. Illustrations in excess of amount allowed by the Council are also extra.

Leaflet Regarding Rules of Publication.—CALIFORNIA AND WESTERN MEDICINE has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

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EDITORIALS†

UNITED ACTION: BY THE PROFESSIONS OF MEDICINE, DENTISTRY AND PHARMACY

"Fraternal Greeting Delegates."—Proceedings, from time to time, of the annual sessions of state medical associations record fraternal greetings, as expressed by representatives from neighboring states; and such felicitations make for solidarity, a unity of effort in the attainment of organization and other results, always mutually desirable. Good, however, though the maintenance of such interchange of opinion may be, an equally important series of contacts are those which can be made with members of the dental profession (who, in one sense, from both the standpoint of professional training and their work, also are doctors of medicine, specializing in a very definite and important field in oral hygiene and surgery), and with members of the pharmaceutical profession (whose forebears included many of the "barber-surgeons" of earlier days, and whose interests are still likewise most intimately related to medical practice).

In the domain of the public health, then, physicians, dentists and pharmacists all have heavy and interlocking responsibilities, as witness in infectious diseases, focal infections, food and drug, and also narcotic violations.

* * *

Medical, Dental and Pharmaceutical Professions Are Well Organized; They Should Pool Their Efforts.—Each of these three professions is well organized, and, in certain activities, each excels the others in well-planned and effective work; wherefore, more intimate contacts, one with the other, and each with the other two, could be made to be of value, not only to the professions themselves, but to the state and its citizens who are to be served.

Another thought to be kept in mind is this: Practically every citizen in California, and other commonwealths, too, at some time or another, has dealings with either a physician, a dentist or a pharmacist; these relationships being often of a peculiarly important and personal nature, needing as their basis mutual confidence and friendship. The existence of this psychologic foundation

†Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column which follows.

should not be underestimated, because, if these learned professional groups with mutual interests pool their joint efforts in civic and legislative matters, it is questionable whether any important matter in which they are jointly concerned could go down to defeat, either in legislative halls or through the general election ballot.

* * *

Twenty-five Thousand Professional Men Can Mold Public Opinion.—In California, the licensing boards in medicine, dentistry and pharmacy have on their registration rolls some 9,000 physicians, 6,000 dentists, 9,100 pharmacists and 1,300 assistant pharmacists, or in all about twenty-five thousand professionally-trained men and women, which, in a state with more than five million citizens, may seem only a minority group. So it is, in numbers; but in capacity for influence, this limited professional aggregation could probably mold public opinion more easily than any other similar number of persons, no matter to what vocations, in what business or other activities they might belong.

* * *

October Conference of Officers and Committeemen Should Consider This Subject at Fresno.—We present this thought as worthy of careful consideration by the officers and members of these three respective professions, each of which, in recent years, has suffered attacks from special interests, resulting in battles which might have been fought to a more successful conclusion had the united strength of the three professions of medicine, dentistry and pharmacy been brought into play.

* * *

California Medical Association By-Laws Provide for a "Contact Committee."—When the present Constitution and By-Laws of the California Medical Association were adopted at Coronado in May, 1929, one of the new standing committees provided for was the "Committee on Associated Societies and Technical Groups"; and it may be well to quote Section 16 of Chapter V of the By-Laws, to note what it states concerning the functions of this committee:

Chapter V, Section 16.—The Committee on Associated Societies and Technical Groups, subject to the instructions of the Council, shall endeavor to create proper liaisons between this Association and other state and national medical organizations, as well as with the organizations of related professions, such as dentistry, pharmacy, and nursing. It shall also endeavor to bring about a proper understanding with nonmedical organizations or groups of technicians and others whose work has a bearing on, or is related to, the practice of medicine.

It is to be hoped, therefore, that the present committee, consisting of Dr. John V. Barrow of Los Angeles, Dr. William H. Geistweit of San Diego and Dr. Edwin L. Bruck of San Francisco, will be able to make a progress report concerning its work at the Fresno meeting in October of State Association officers, county society secretaries and members of standing committees, that will be of highest interest and value to all concerned.

Fraternal Delegates to These Associated Professions.—Why, also, would it not be good policy for the California Medical Association to have a standing rule to send fraternal delegates each year to the annual sessions of the California State Dental and Pharmaceutical Associations?

It might be advisable, in addition, to make provision for a conjoint session of the legislative committees of the three professions, to discuss pending and prospective laws. Each group could hold its own meeting part of the day, but a brief general session, say from 11 to 12:30 noon, with luncheon to follow, could go far in making for better understanding and agreement on efforts that should be coördinated.

The changing times and the many onslaughts by social and other theorists necessitate new lines of offense and defense in professional practice. Proper union between the members of the medical, dental, pharmaceutical, and also the nursing professions would go far in making for better protection of the public health, and at the same time aid materially in the maintenance of professional standards and aims.

CALIFORNIA "MIGRANTS": "WORKERS" AND "ROVERS"

A New California Problem.—During the several years just passed, a new social, public health and economic problem has forced itself upon the attention of state, county and municipal officials of California. It has to do with migratory workers, or "migrants," as the daily press is beginning to designate them. Because these transient laborers—some merely "rovers" in search of a kindlier climate and environment, and an easier mode of living—are often almost without financial means, compelling them to live under crowded and unhygienic conditions, their presence in a community early and necessarily attracts the notice of state and local public welfare and health officials; and later, the mounting costs of the physical care and relief needed by these indigent or near-indigent transients make such inroads upon state and local funds as to challenge the attention of administrative officials.

* * *

Articles in This Issue.—In this issue of the Official Journal will be found some press clippings and other articles* giving illuminating information on the bigness of this California problem; a matter, indeed, so serious, in these days of economic stress and strain, that it has at last taken on special importance for taxpayers as well as state and local officials.

The article and letter, for example, by Director Dickie indicate the manner in which the State Board of Public Health is drawn into the picture, both from the demands of preventive and also of curative medicine; the latter called for when persons of insufficient residence in California are not eligible to admission to county hospitals, it then

* See, for press clippings, page 141; for article on migratory workers, page 106; for letter, page 131.

becoming necessary for state and local health authorities to step in, both to give emergency medical care and to prevent the spread of infectious diseases. The extent of the economic phases will be better understood, after perusal of the rising relief costs in one county of the state, that of Los Angeles.

* * *

Responsibilities of Respective County Medical Societies.—In counties in which these "migratory camps" come into being during different periods of each year, the component medical societies may serve their respective communities in good wise, through the appointment of special committees to make surveys and reports on how best to bring about efficient coöperation with local public health agencies and other officials.

* * *

Federal Coöperation Is Also Indicated.—Here, also, we deal with not an intrastate, but rather an interstate problem; wherefore, in good time, federal coöperation and support must likewise be forthcoming. Some of the press clippings take up this phase of the problem.

"GOVERNMENT MEDICINE"

"Los Angeles Times" Prints a Sound Editorial on Senator Lewis' American Medical Association Address at Atlantic City.—The address of Senator James Hamilton Lewis of Illinois, made at the Atlantic City meeting of the American Medical Association and printed in the *Journal of the American Medical Association* proceedings of the House of Delegates, has become the basis of much comment, particularly so because of the vagueness of some of the Senator's statements.

From later accounts, it would appear that Senator Lewis spoke, not in the name of President Roosevelt, but as a "friend of both the Federal Administration and the Medical Profession." For his kindly advice, physicians should be appreciative, even though they fail to accept many of his premises and conclusions. His remarks were discussed in both the medical journals and the press in general; and an editorial, with the caption, "Government Medicine" (reprinted on page 141, in this number), which appeared in a recent issue of the *Los Angeles Times*, is given place because it brings out some very sensible points. Its perusal, consequently, is commended to our readers.

NEW PUBLIC HEALTH LAWS

New Laws Become Operative on August 27, 1937.—On August 27, the statutes approved by the Legislature and signed by Governor Merriam become laws. In previous issues comment was made on proposed laws. Some of these failed to receive legislative approval, others were given "pocket" or direct vetoes by the governor, or signed by him, these last to find places on the statute books.

Many members of the Association, during the recent legislative session, gave much appreciated aid when called upon by the California Medical Association Committee on Public Policy and Legislation; and for them and other readers the comments which follow are hereby presented.

* * *

Laws Relating to the Medical Practice Act.—From the report of the Law and Education Committee of the California Board of Medical Examiners, Charles E. Schoff, M. D., chairman, we quote:

On June 24, 1937, the records of the Secretary of State's Office show the following bills, in which the Board of Medical Examiners has been interested during the last legislative session, to have been signed by the Governor and chaptered:

Senate Bill 133 (Code bill—companion to Assembly Bill 880); signed June 17, 1937. Now Chapter 414, Statutes 1937.

Senate Bill 252—Provided funds for a building for this department in Sacramento; signed May 12, 1937. Now Chapter 288, Statutes 1937.

Assembly Bill 880 (Code bill—companion bill to Senate Bill 133); signed June 16, 1937. Now Chapter 399, Statutes 1937.

Assembly Bill 1005—Added Section 581 to the Business and Professions Code re diploma mill; signed June 17, 1937. Now Chapter 446, Statutes 1937.

* * *

Assembly Bill 1004 (Received Pocket Veto)—Proposed to amend Section 2380 of the Business and Professions Code, prohibiting "the actual practicing of any system or mode of treating the sick or afflicted which is intended or has a tendency to deceive."

Assembly Bill 1253 (Received Pocket Veto)—Among other provisions prohibited dispensing, prescribing or selling of dinitrophenol for therapeutic purposes.

Senate Bill 782 (Received Pocket Veto)—Added the following sections to the Business and Professions Code: (*a*) required appellant to pay cost of appeal, (*b*) included under the heading of "unprofessional conduct" the "fraudulent representation by advertisement or otherwise that a manifestly incurable condition of sickness, disease, deformity, ailment, or injury of any person can be cured. . . ," (*c*) knowingly making or signing any false certificate while acting in a professional capacity, or while acting within the scope of practice permitted by the certificate issued.

Senate Bill 783 (Received Pocket Veto)—Amended Section 2436 of the Business and Professions Code providing for injunction.

Senate Bill 1139 (Received Pocket Veto)—Amended the so-called college incorporation bill passed in 1927 (Chapter 152, Statutes 1927).

* * *

California State Board of Public Health.—A résumé of legislation relative to public health enacted by the Legislature of 1937, and receiving the Governor's approval, includes the following:

Assembly Bill 2790, now known as Chapter 787, Statutes of 1937.

This Act provides for the establishment in the State Department of Public Health of a Bureau of Venereal Diseases whose function it shall be to "coöperate for the prevention, control, and cure of venereal diseases with physicians and surgeons, medical schools, public and private hospitals, dispensaries, clinics, public, and private schools, colleges, normal schools, university authorities; federal, state, local, and district health officers and Boards of Health and all other authorities; institutions caring for the insane; and with any other person, institutions or agencies."

It gives the State Board of Public Health power to " . . . make and promulgate such rules and regulations as

are reasonably necessary to effect the control of venereal disease . . . and such rules and regulations as are reasonably necessary to control and effectuate a proper reporting, quarantine, examination of, and proper control measures for such diseases." It further provides that "it shall be incumbent upon a State agency conducting a public hospital to admit acute venereal disease cases when, in the opinion of the State Department of Public Health or the local health officer having jurisdiction, such person infected with venereal disease may be a menace to public health."

To provide for the enforcement and support of the provisions of this Act the sum of $150,000 was appropriated for the eighty-ninth and ninetieth fiscal years.

* * *

Assembly Bill 1721.

This Act provides that the sale and distribution of prophylactics shall be under regulation of the State Board of Pharmacy. It provides for the licensing of wholesalers and retailers. It provides standards for definite types of prophylactics, and further provides that all prophylactics must bear the manufacturer's name, address, and trademark. The Act further makes it unlawful to publicly advertise the sale or uses of prophylactics on "placards, billboards, hand bills, newspapers. periodicals. or other printed matter, or by radio"; but does not prohibit the advertising in medical or drug publications.

* * *

Assembly Bill 1132.

Adds Chapter 11a—Section 11491 to 11519 to Part 2 of the Insurance Code—and repeals Chapter 386 of the Statutes of 1935.

1. Applies only to nonprofit hospitals, and nonprofit hospital services.

2. Hospitals shall incorporate under provisions of this Chapter and Division One, Part IV, Title XII of the Civil Code.

3. At least two-thirds of the Board of Directors shall be representatives of the hospital with whom the hospital service has contracts and licensed physicians.

4. All hospitals with whom a hospital service contracts in the State of California must be licensed by the State Department of Public Health.

5. The State Department of Public Health shall inspect all hospitals before issuing a certificate.

6. The fee for inspection and a certificate of approval shall be not more than 25 cents per bed, but not less than $15 per hospital.

7. The State Department of Public Health shall have the power to enforce the provisions of this Act and regulate and enforce the hospital standards of this Act.

8. The State Department of Public Health may hold hearings on complaints against any licensed hospital. The certificate of approval may be revoked. In such case the department shall notify the Commissioner of Insurance. He then shall revoke the certificate of authority of the hospital.

9. The Commissioner of Insurance shall not issue a certificate of authority to any nonprofit hospital service unless:

(*a*) The hospitals contracted with have certificates of approval from the State Department of Public Health.

(*b*) The contract with subscribers is free of fraud.

(*c*) That no profit can be made from contracts, fees, etc.

* * *

Senate Bill 118.

1. Licenses may be issued—

(*a*) Technologists—

1. By examination.

2. All those engaged in direction of a laboratory for a period of five years prior to this Act.

(*b*) Technicians—

1. By examination.

(*a*) All sciences.

(*b*) One science only.

2. Any person who, for three years during past five years has been engaged in performing clinical laboratory tests in California.

2. Laboratory supervised by a licensed technologist or M. D.

3. All technicians must be licensed by State Board of Public Health.

4. Apprentices in laboratories are allowable.

5. Persons employable—

(*a*) Licensed technologists and technicians only employable after January 1, 1938.

(*b*) Apprentices can be employed only in a laboratory in which there are licensed technicians.

(*c*) Unlawful for more than two apprentices to be employed in one laboratory.

6. Laboratories in nonprofit hospitals, State hospitals, or United States hospitals exempt.

7. Fees—

(*a*) License fee of not exceeding $10 for each technologist and not to exceed $5 for each technician.

(*b*) Finances reportable monthly by Board to State Controller and biennially to Governor.

8. State Board may make rules and regulations for enforcement of Act.

Concerning the above discussed Senate Bill 118, the following report may also be of interest:

COPY

June 17, 1937.

Report on Senate Bill No. 118—Parkman:

Subject: New act, licensing clinical laboratory technologists and technicians, and regulating the conduct of clinical laboratories.

Form: Approved.

Constitutionality: Approved.

Analysis:

This act is substantially the same as Deering Act 4814a, Chapter 638 of the Statutes of 1935. This 1935 Act was held unconstitutional by the Attorney General, and the bill repeals this 1935 enactment and provides another statute without the unconstitutional feature.

The bill declares that it is unlawful, after January 1. 1938, for any person to conduct a clinical laboratory or to perform tests in such laboratory unless he is licensed as a clinical laboratory technologist or as a clinical technician or as a physician and surgeon. (Secs. 1 and 5.)

The State Board of Public Health is to issue certificates to qualified technologists and technicians after examination to ascertain their fitness to practice. Technologists who have practiced five years, and technicians who have practiced three years may be licensed without examination if they file their application prior to January 1, 1938. (Secs. 4 and 5.)

The bill exempts clinical laboratories operated by nonprofit hospitals. and by nonprofit hospitals which are maintained by employers for their employees and their dependents. It also exempts clinical laboratories operated by the State or Federal Government, and those operated by nonprofit foundations engaged in research work. (Sec. 6.) The bill does not require physicians and surgeons to be licensed in order to conduct a laboratory or to perform tests. (Sec. 4.)

A fee of not to exceed $10 is provided for the original application and the annual renewal of a technologist's license, and a fee of not to exceed $5 is provided for the original application for a technician's license, and of not exceeding $1 for the annual renewal of a technician's license. All money collected is deposited in a special fund and appropriated for meeting the costs of enforcing the act. (Sec. 8.) FRED B. WOOD, *Legislative Counsel.*

* * *

Senate Bill No. 425 now known as Chapter 758, Statutes of 1937.

This is "An act to license. regulate and control the manufacture, transportation, sale, purchase, possession, and disposition of alcoholic beverages; to levy an excise tax on the sale of alcoholic beverages; to provide for the licensing of the manufacture, distribution and sale of alcoholic beverages; to prescribe penalties for the violation of this act;

to promote temperance in the use of alcoholic beverages; to adopt and enforce unfair trade practice regulations and price-positing provisions regulating the sale of alcoholic beverages; to take effect immediately."

In section 37, item 3 of this Act, the sum of $60,000 is appropriated ". . . to be used by the State Department of Public Health for enforcement work directed toward preventing the manufacture, sale, or transportation of adulterated, misbranded, or mislabeled alcoholic beverages."

This Act allows the Bureau of Pure Food and Drug Inspection to continue the work of enforcement of the regulations of the 1935 Act on manufacture, sale, or transportation of adulterated or misbranded alcoholic beverages.

* * *

Assembly Bill 116, Chapter 769, Statutes of 1937.

This bill appropriates the sum of $50,000 to be expended by the State Department of Public Health for the enforcement of standards, quality and identity in the manufacture and sale of California wines and brandies.

* * *

Assembly Bill 2058, now known as Chapter 777, Statutes of 1937.

This Act amends Section 1144 of the Agricultural Code pertaining to the regulation by the State Department of Public Health of eggs shipped into the State of California from other states or from another country.

It provides:

1. That a statement be sent the Department of Public Health as to the quality, kind, and containers of egg products shipped into the United States.

2. That a statement showing the person or firm to whom such egg products are sold be furnished the State Department.

It further provides that cold storage warehouses furnish the department at the end of each month a statement of all foreign imported eggs received during the month, with the name of the depositor, the quantity of such egg products, and the containers used. Further, that such foreign imported egg products shall be inspected by the department before removal. An appropriation of $2,400 was made to the department for the enforcement of this act.

TWO INTERESTING DECISIONS OF THE A. M. A. JUDICIAL COUNCIL BEARING ON APPEALS AGAINST DISCIPLINARY ACTION IN CALIFORNIA

Appeal from Disciplinary Action of Two Component County Societies.—Del Monte Session minutes* make brief reference to disciplinary action by two component county societies of the California Medical Association taken against certain respective members; the members so adjudged refusing to accept the verdicts, and presenting appeals, first to the Council of the California Medical Association for reversal of county society action and, when not granted by the State Council, then to the Judicial Council of the American Medical Association for reversal of judgment or a rehearing.

Space does not permit the printing of the full decisions of the American Medical Association Judicial Council in the matter of these appeals, but it may be of interest to members to peruse excerpts on some of the general principles involved, as handed down by this national committee. The particular decisions in question, as given by the American Medical Association Judicial Council and transmitted to the California Medical Association under date of April 24, refer to disciplinary procedures previously considered by the Council of the California Medical Association in connection with actions taken by the San Francisco and Kern County Medical Societies.†

* * *

Excerpts from the Decision of the Judicial Council of the American Medical Association in the San Francisco Cases.—From the decision rendered in the San Francisco cases, we quote:

The appellants in this case were charged with a violation of certain sections of the Principles of Professional Conduct of the San Francisco County Medical Society, were found guilty and sentenced to various degrees of punishment. Appeal was taken to the Council of the California Medical Association. Before the appeal was heard certain of the group asked for a rehearing before the county society Board of Directors, which was granted and held, but none of the appellants appeared. At the rehearing, guilt was reaffirmed, but certain sentences previously meted were modified. . . .

* * *

The appellants came before the Judicial Council asking a reversal of the decision of the Council of the California Medical Association on the following grounds. . . .

* * *

. . . There was a voluminous mass of exhibits and testimony presented at the hearing before the Judicial Council. Exhaustive briefs were submitted and there was every evidence of thorough and aggressive preparation by astute legal minds on both sides. Every advantage was taken of technicalities and of errors of procedure. In analyzing and studying the material and the arguments the Council [American Medical Association Judicial Council] has had as its objective the determination as to whether or not the interpretation of ethical matters has been correct and whether or not the appellants have had a fair trial. . . .

* * *

. . . The Judicial Council [American Medical Association Judicial Council], after a thorough consideration of the general conditions of professional practice in San Francisco County as exhibited by the records, is of the opinion that the trial was as fair as could be had under the provisions of the constitution and by-laws of the County Society. It believes that, in fact, there was no discrimination or unfairness warranting a reversal of *the action* of the State Council. . . .

* * *

. . . The Council [American Medical Association Judicial Council] is not concerned with fine legal technicalities. Its function is to see that substantial justice to both parties in a controversy is done to one no less than the other. In the present instance the appellants were convicted of conduct stated to be unethical under the Principles of Medical Ethics, and their conviction was upheld by the Council of the California Medical Association. The Judicial Council expresses no opinion as to guilt or innocence, but guilt having been declared, the Council considers it a minor technicality as to whether the charges were brought under a county rule of conduct or under the American Medical Association's Principles of Ethics.

. . . In respect to the third contention of the appellants, that there was not sufficient evidence to show any violation of the Principles of Conduct of the San Francisco County Medical Society by the appellants or any of the accused, the Judicial Council is not in agreement with the sophisticated reasoning upholding the contention. As the guilt or innocence of the charge is the province of the county and state bodies, the Judicial Council [American Medical As-

* See June, 1937, issue, CALIFORNIA AND WESTERN MEDICINE; for House of Delegates minutes, page 411; and for Council minutes, items 5 and 14, page 424.

† See Council minutes as follows:

Volume 44, No. 2, February, 1936, pages 121 and 122; Volume 44, No. 5, May, 1936, pages 438 and 439; Volume 45, No. 1, July, 1936, pages 96 and 97; Volume 45, No. 5, November, 1936, page 431.

sociation Judicial Council] has no further comment to make. . . .

* * *

. . . The Board of Directors [of the San Francisco County Medical Society] met to consider the report of the Grievance Committee and hear arguments from the accused. This meeting was attended by fourteen of twenty-one directors, and at this meeting the transcript of evidence being so voluminous (1291 typewritten pages) as to be impossible of reading and review by all members of the Board, a committee of five was appointed to read, review and report back to the Board. . . .

* * *

. . . The San Francisco County Medical Society defrayed the expense of eleven hearings during which the defense had the benefit of a transcript of its own sixteen witnesses. It now claims to have more material witnesses. If it had more witnesses who were material, the defense was privileged to provide a stenographer as the Society had done up to its ability. Reading this transcript through its 1291 pages, the Council [American Medical Association Judicial Council] has some question as to the material nature of the further evidence the accused desired to present. It would seem that sixteen witnesses should be a sufficient number to controvert the charges if they could be controverted. . . .

* * *

. . . The Judicial Council [American Medical Association Judicial Council] finds no reversible error or injustice in this case and, therefore, sustains the decision of the Council of the California Medical Association. . . .

* * *

April 5, 1937.

* * *

Quotations from the American Medical Association Council's Decision in the Kern County Cases.—Following are some excerpts on the Kern County appeal:

. . . The appellants in this case were charged with unethical conduct in that they had been and were at the time violating Chapter III, Article VI, Section 2, of the Principles of Medical Ethics of the American Medical Association; Section 4 (second paragraph) Chapter I of the by-laws of the California Medical Association; and subdivision (b) of Section 1 of Chapter I of the by-laws of the Kern County Medical Society by disposing of their services under conditions that make it impossible to render adequate service to their patients and interfere with reasonable competition in the community. They were tried according to the procedure set forth in the by-laws of their society, found guilty as charged and sentenced to expulsion from and various terms of suspension of membership. The disciplined members appealed to the Council of the California Medical Association as duly provided in the California Medical Association's by-laws, which Council heard their appeal and confirmed the action of the Kern County Medical Society except as to a modification of the periods of suspension. The appellants then carried their appeal to the Judicial Council of the American Medical Association alleging . . .

* * *

. . . As provided in the by-laws of the American Medical Association this Judicial Council [American Medical Association Judicial Council] does not consider nor express any opinion as to the guilt or innocence of the appellants as charged, except in so far as a question of interpretation of the Principles of Medical Ethics is concerned. Its duty is confined to a consideration of the law and procedure to assure an accused a proper and a fair trial, and to an interpretation of the Principles of Medical Ethics.

As to procedure the Judicial Council finds no major error. The charges are drawn with great care and much detail. The accused could not be so ignorant of the charges as to be unable to prepare and present such defense as they might have. Although the appellants were given every opportunity to appear and defend themselves they chose not to appear but to depend upon a written blanket denial of the charges, legal technicalities, and a charge of prejudice against their judges. Physicians are not lawyers nor are they trained in the law. The constitutions and by-laws of their societies and the Principles of Medical Ethics are not worded nor are their rules of procedure adopted with the intention of allowing minor technicalities or sophisticated argument to prevent justice or interfere with the high ideals inherent in the practice of medicine. The claim of the appellants of irregularity in the charges is not upheld.

The claim of prejudice against them on the part of their judges is a claim only and not supported at any point by evidence in the record. . . .

* * *

. . . The appellants contended . . . that as they were neither charged with nor were practicing "contract practice" they had not violated the section. In interpreting this section, as is true of all other sections, it must be borne in mind that the Principles of Medical Ethics are, in fact, principles as distinguished from laws. Principles are the bases upon which laws are written. They are basic and general in character. They are not to be evaded by sophistry nor held to specific wording. Laws are based on principles as applied to particular acts or conditions. They are specific in their application and definite in their language. A fair example are the laws governing assault, assault and battery, mayhem, manslaughter, and murder. These laws all vary and are very specific in their provisions, but all are based on the principle that it is wrong physically to harm another. Such laws may be and often are circumvented or evaded by technicalities, but principles may not. In the section quoted under the heading of "contract practice," first there is stated the broad general principle applicable to all medical practice that "It is unprofessional for a physician to dispose of his services under conditions that make it impossible to render adequate service to his patient or which interfere with reasonable competition among the physicians." Following this broad principle, because contract practice is by far the major method of practicing which may need this general principle to be expressed, is a definition of what is considered to be "contract practice." This definition is specific in its wording—as it should be—and until changed by action of the House of Delegates specifically limits the application of the term "contract practice" to words of the definition. It should be noted that there is no definition of what is an ethical "contract," for it would be impossible in being specific to cover all contingencies and close the door to all evasions of the specific language used. . . .

* * *

. . . The appellants were charged on four counts. It is not necessary that they be found guilty on all four counts to exercise disciplinary measures. To be found guilty on one count is sufficient to impose disciplining suitable to the degree of guilt proved. The Judicial Council considers that the punishment decreed does not exceed the merit of the case. The decision of the Council of the California Medical Association affirming in part orders entered by the Kern County Medical Society . . . is sustained.

* * *

The broad and fair spirit in which the five members of the Judicial Council of the American Medical Association (Lloyd Noland, Fairfield, Alabama, 1937; John H. O'Shea, Spokane, Washington, 1938; Edward R. Cunniffe, New York, 1939; George Edward Follansbee, chairman, Cleveland, 1940; Walter F. Donaldson, Pittsburgh, 1941; Olin West, secretary ex officio, Chicago) approached their work is evident when the above excerpts are read.

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, **commencing on page 117.**

EDITORIAL COMMENT†

RELATION OF VITAMINS TO IMMUNITY

It is apparently axiomatic to commercial advertisers that the oral administration of vitamin preparation or the ingestion of foods with high vitamin content increases the "vitality" of normal individuals, and that this increased "bodily vigor" must necessarily manifest itself by an increased resistance to infectious diseases. This intuitive belief is definitely stated or implied in numerous current commercial advertisements. Few exploiters of vitamin-rich foods, however, realize that this belief is as yet unsupported by adequate experimental evidence. The experimental studies recently reported by Doctor Jusatz[1] of the Hygienic Institute, Marburg, Germany, are perhaps prophetic of the type of evidence to which commercial interests must in time adjust their advertising policy.

In order to test the effects of vitamin deficiencies on immunologic functions, the German serologist fed growing rabbits on routine laboratory diets which had been rendered vitamin-free by prolonged pressure-cooking at 120 degrees centigrade. Rabbits thus fed were invariably arrested in their normal growth, and usually remained at a fairly constant subnormal weight for four or five months. Serological examination showed a subnormal bactericidal titer (*Staphylococcus aureus*) in the blood serum of these stunted rabbits. Of even greater significance the stunted rabbits were unable to produce specific antibodies of normal titers, precipitins being produced of only 10 per cent the titer of those produced in control normal rabbits. Thus far, Jusatz's data confirm the advertised claims that vitamin deficiencies cause a lowering of normal antimicrobic resistance.

The therapeutic effects of commercially available vitamins were tested by Doctor Jusatz on these immuno-deficient rabbits. Fat-soluble vitamin A was administered orally in the form of commercially available "Vogan" (Merck); water-soluble vitamin B-complex given in the form of dry yeast, "levurinose"; and water-soluble vitamin C either as a native ascorbic acid recrystallized from paprika or as commercially available synthetic ascorbic acid, "redoxon." Doctor Jusatz found that the daily addition of any one of these preparations to his heat-denatured diets had no demonstrable beneficial effect on the bactericidal titer of his stunted rabbits. Nor did such additions give any demonstrable serologic benefits to control normally fed rabbits. Given orally in adequate doses over long periods of time, these vitamins did not enable his deficiency rabbits to produce specific precipitins of normal titers. The widely advertised immunotherapeutic claims of these vitamins in deficiency diseases, therefore, were not confirmed by his experiments.

Tests with commercially available fat-soluble vitamin D ("Ergosterin," Merck) gave even more discouraging results. Daily feedings (or intragastric injections) with recommended doses of "ergosterin" led in about half of his stunted rabbits to a transient rise in the bactericidal titer of the blood serum. This improvement lasted about seven days. After the seventh day all of his rabbits showed a gradual or even rapid fall in bactericidal index. A new and apparently permanent low level was established by the twenty-first day. In most cases this was approximately half of the average titer in his untreated deficiency rabbits. This vitamin D suppression of titer even below the previous deficiency level was attributed by him to a beginning D-hypervitaminosis. Vitamin D also depressed the subnormal power of his deficiency rabbits to produce specific antibodies.

Clinicians will challenge Doctor Jusatz's conclusions as presumably inapplicable to the relatively mild vitamin deficiencies of human medicine. His results, however, cannot fail to place numerous commercial interests on the defensive.

Box 51.

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Stanford University.

SULFANILAMIDE IN THE TREATMENT OF GONORRHEA

In view of the recent publicity in the lay journals and metropolitan dailies regarding the administration of sulfanilamide for gonorrhea, it should not be amiss to comment briefly thereon.

Until the advent of the ketogenic diet, now almost supplanted by the use of mandelic acid, the value of urinary antiseptics, administered either orally or parenterally, was questionable.

We now have two agents of undoubted value in the treatment of many urinary and some genital infections. From clinical observations it would seem that mandelic acid is efficacious by reason of imparting bactericidal and bacteriostatic properties to the urine, but its use is contraindicated in urinary tuberculosis and in gonorrhea.

Colston of Johns Hopkins is authority for the statement that the urine of patients taking large doses of sulfanilamide is not bactericidal, notwithstanding the truly marvelous therapeutic results he claims to have observed in the treatment of acute gonorrhea by this agent.

On the other hand, Helmholz and his coworkers demonstrated that the urine of patients taking it was decidedly and unmistakably bactericidal for Escherichia coli and Aerobacter aerogenes, and for certain strains of Staphylococcus aureus, Streptococcus faecalis, Proteus vulgaris and Pseudomonas aeruginosa.

When employed for subacute prostatitis of gonorrheal origin, prompt and decided improvement in several patients has been observed by a number of my close colleagues and myself. This improvement is so striking that the drug would

†This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

1 Jusatz, H. J.: Ztschr. f. Immunitätsforsch., 88:472, 483, 1936.

seem to function through the capillary or lymph stream in addition to the bactericidal action of the urine. It would seem impossible for a purely bactericidal urine to produce such results, since such infections of the prostate could not possibly be reached by bactericidal urine alone. This hypothesis is in keeping with the experience of many clinicians in Europe and America employing sulfanilamide for the varied infections caused by B-hemolytic streptococci. Thus this seeming fact provides us with an agent heretofore almost lacking.

Our clinical experience, although limited, seems to demonstrate the following, viz.:

1. In about 20 per cent to 25 per cent of the cases of acute gonorrhea, with oral administration of sulfanilamide, prompt and spectacular therapeutic results ensue.

2. In perhaps 25 per cent more, the clinically observed results are definite and decided.

3. In the remainder, its efficaciousness is difficult to demonstrate.

4. Except in the class above noted, where improvement is prompt, definite and decidedly marked, orthodox treatment (in conjunction with sulfanilamide), should not be neglected.

5. There seems much promise in the use of this synthetic in the treatment of gonorrheal arthritis.

6. For the present, the dosage of forty grains per diem should seldom be exceeded except in desperate cases. For gonorrhea, it is wise to begin with the smaller dosage and increase, rather than the large initial amounts advocated by most authors for severe types of streptococcus infections.

7. With moderate dosages we have so far noted no very serious toxic effects, and no blood dyscrasias have occurred; nevertheless, a most careful watch should be had for any toxic manifestations. These manifestations are dizziness, anorexia, malaise, muscular weakness, and even marked mental confusion occasionally with maximum dosage. If such toxic symptoms are encountered, the drug should be promptly discontinued temporarily or permanently.

1913 Wilshire Boulevard.

Robert V. Day,
Los Angeles.

INFANT MORTALITY IN SAN FRANCISCO

For the year 1936 the infant mortality rate in San Francisco was 42 per 1000 live births. This was an increase of 6.7 over the year 1935 which showed a rate of 35.3. In 1935 infant deaths comprised 2.9 per cent of the total deaths, whereas in 1936 the infant mortality was 3.3 per cent of total deaths, showing both an actual and relative increase. For the past ten-year period the average infant mortality rate is 41, ranging from 49 in 1927 and 1929 to an all-time low rate of 33 in 1934. While the rate of 42 in 1936 still comes within the standard deviation, which may normally be expected, an analysis of the causes of death for the two years of 1935 and 1936 presents some interesting comparisons.

Principal Causes of Infant Deaths

Cause of Death	1935	1936
Atelectasis	23	6
Bronchopneumonia	15	27
Congenital heart malformation	17	22
Enteritis (under 2 years)	5	20
Injuries at birth (without Cesarean)	15	23
Lobar pneumonia	2	10
Other congenital malformation	14	10
Prematurity	108	108

By far the greatest single cause of death was prematurity, which was identical for the two years. Atelectasis showed a marked decrease in 1936, a fact which, perhaps it might be said, reflects an improvement in prenatal and obstetric care. This latter, however, is not borne out by the significant increase in injuries at birth in 1936 over 1935, the term "injury," of course, having a very broad interpretation. The only other cause of death to show a decrease in 1936 was listed under congenital malformation other than heart. No significance may be attached to this finding. The greatest increase in 1936 was found in bronchopneumonia, with 27 deaths as against 15 in the year before, and 10 deaths from lobar pneumonia as against 2 in 1935. Altogether an increase of 20 pneumonia deaths, proving the private physicians' impression that 1936 was a "respiratory year" to be correct. Another significant increase was from enteritis. Most of these deaths occurred during an institutional outbreak, which was not reported to the Health Department until near its termination. With a total of 52 more deaths in 1936 than there were in 1935, 35 may be accounted for by pneumonia and enteritis alone. The remaining increase is disseminated throughout the other causes of death, one more here and one more there, without any significant distribution.

Conclusions.—Most of the increase in the infant mortality rate in San Francisco may be accounted for by the increased incidence of respiratory diseases in 1936 and a localized outbreak of enteritis in a children's institution.

Office of Director of Public Health.

J. C. Geiger,
P. S. Barrett,
San Francisco.

Repellants Against Mosquitoes.—All repellents directed against mosquitoes have one common drawback: the most efficient ones are highly volatile and their effect rapidly wears off. A successful repellant, besides being obnoxious to the mosquito, should have the following requirements: it should have a base that will retard rapid volatilization of the active principle, it should spread readily, and it should have such a consistency that it will adhere to the exposed body surfaces. Of the large number available the most satisfactory formula is probably oil of citronella 15 cubic centimeters (one-half ounce), spirit of camphor 7.5 cubic centimeters (one-fourth ounce), cedar-wood oil 7.5 cubic centimeters, and white petrolatum 60 grams (two ounces). The use of a phenol soap for washing may be of aid. For lawn parties or open-air gatherings, frequent undertable sprayings with Flit or any of the antimosquito sprays insures comfort for a considerable time.

ORIGINAL ARTICLES

THE UTERINE CERVIX: ITS DISORDERS AND THEIR TREATMENT*

By NORMAN F. MILLER, M.D.
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PROBABLY the full significance of the trite old saying, "An ounce of prevention is worth a pound of cure," has not yet been fully realized so far as the uterine cervix is concerned. The physician looking at the cervix should see more than just a simple lesion. He should see future disease often foreshadowed by the minor disorder before him. While there are a great many things about common lesions of the cervix that are poorly understood, this need not influence our practical attitude toward them. Time and research will likely alter our ideas, but until that time arrives existing evidence justifies reasonable concern over their presence and correction.

CLASSIFICATION

While much has been written regarding cervical disorders it is pertinent to our discussion that we briefly review these lesions, particularly their accepted cause and histopathology. Generally listed among common disorders of the cervix are:

1. Cervicitis (acute and chronic).
2. Erosion.
3. Cystic change.
4. Cervical polyp.
5. Laceration.
6. Eversion.
7. Leukoplakia.

By separately naming the disorders we imply distinct disease, each with its etiology and individual histopathology. Existing knowledge, however, suggests that this is incorrect. Bacterial trauma is likely to be an important etiological factor, and there is evidence to show that glandular dysfunction may also play an etiological rôle. However, such cause-and-effect relationship remains to be proved. Generally speaking, infection of the cervix is probably at the root of more evil than has generally been conceded in the past.

CERVICITIS

In acute cervicitis the inflammatory process is at first limited to the glands lining the cervical canal gradually spreading to the point where there is extensive and deep-seated involvement. Clinically, acute cervicitis is easily recognized, for the purulent or mucopurulent discharge coming from the cervical canal is a familiar picture. Less readily appraised are the chronic cases where the external appearance is nearly normal and gives rise to little cause for concern. The amount of discharge may not be great nor sufficiently purulent to excite interest, yet chronic cervicitis is very common and unquestionably the source of much physical suffering. The physician would do well to view cervicitis as exhibit "A" among common disorders of the cervix.

EROSION

Trauma, actual, bacterial or chemical is generally thought to cause cervical erosion. Many observers place preëxisting cervical infection in the leading rôle in this connection. I believe erosions likely to be of endocrinal origin, but these unsettled questions need not confuse us in our more practical consideration of the subject. Erosions are common and easily recognized as the reddish area surrounding the cervical os. The first stage of an erosion is said to be the result of cervical infection (?) which leads to maceration and superficial slough of the squamous epithelium surrounding the external os. Actually and for a short time there may exist a true erosion. This first stage of depithelization is presumably replaced by columnar epithelium similar to that lining the cervical canal where it continues until the environment or something else again predisposes to the return of squamous epithelium. The source of the columnar epithelium is open to controversy, but generally it is thought to be derived from the cervical glands. With subsidence of the cervicitis or disappearance of the causative factors, the second stage, clinically characterized by the red-appearing columnar epithelium, gives way to squamous epithelium once more, the so-called healing of an erosion. A great deal of significance is attached to this interplay of epithelia in the development of cervical cancer.

CYSTIC CHANGE

Healing of an erosion seldom obliterates all evidence of its previous existence. Glands developed as part of the lesion on the vaginal surface of the cervix are either plugged by colepithelium or otherwise have their ducts occluded in the healing process. In either case the glands, unable to discharge their content, become distended and clinically appear as small pearly bodies which, when ruptured, discharge a thick tenacious mucus. Actually this cystic cervix is but a late phase of a preëxisting erosion. For clinical purposes, however, it is easier to designate the condition by the term cystic cervix which, after all, clearly describes the lesion at this stage. In evaluating these cysts it should not be forgotten that the visible cysts are but a part of the process, and that similar gland changes also occur in the deeper tissues of the cervix. It requires no stretch of imagination to realize how extensively the neck of the uterus may come to be altered by the changes described.

CERVICAL POLYPS

Adenomatous polyps of the cervix are common sequelae to chronic irritation and particularly infection. The polyp is readily recognized on speculum examination, but may easily be missed on digital examination alone, a point to be remembered in making a study of any woman's pelvis. They vary in size from tiny pinhead tumors to structures measuring three to four inches in length,

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Guest-speaker address given at the first general meeting of the California Medical Association during the sixty-sixth annual session, Del Monte, May 2–6, 1937.

and half an inch in diameter. Soft in texture, red in color and painless, they seldom undergo malignant change, but even so warrant microscopic study wherever possible. Their presence always suggests chronic irritation of inflammatory character.

LACERATION

While deep tears of the cervix and especially those associated with extensive scarring are clinically significant, the same concern cannot be said to apply to minor *healed* lacerations without extensive scarring. Lacerations may predispose to cervical infection, but aside from this there is scanty evidence to indicate that the average healed cervical tear does any harm. Doubtless much of the grief attributed to cervical tears in the past originated from other sources.

EVERSION

As the name implies, eversion or ectropion, as it is sometimes called, is merely a rolling out of the endocervium or mucous membrane lining the cervical canal. This condition occurs secondary to cervical lacerations, and except for the fact that by being so exposed it more readily becomes infected, the condition has no particular significance. Clinically it appears as a red area extending down from the cervical canal and involving only the central surface of the anterior and posterior cervical lips. It differs from an erosion in that there is actually no misplacement of epithelium. The deep reddish color is due to the columnar epithelium and its emmediate underlying structures. Similar coloring, and for the same reason, is noted in an erosion.

LEUKOPLAKIA

This term is rather broadly applied to any area or spot of thickened epithelium on the cervix. Interest in this particular change is relatively recent, and may be attributed to the use of the colposcope in studying the cervix. Extensive leukoplakias are readily recognized clinically by the grayish-white appearance of the involved area.

COMMENT

These then are the common disorders of the cervix seen by physicians every day. Easily recognized, they do not always impress the practitioner with their probable significance. Too often he sees only the cervix and fails to recognize that a mucopurulent discharge from the cervical os is more than just a medical term—cervicitis. Indeed, unless the physician sees beyond the narrow limits of the disorder before him and envisions disease in its broader aspects—forecast perhaps by the insignificant-looking lesion before him, he is likely to fumble a great opportunity for prevention of disease in the female pelvis. We must recognize that the real importance of these common cervical disorders lies not so much in their existence as a local abnormality, but in their future potentialities.

SEQUELAE

To fully comprehend the significance of these lesions they should be weighed in the light of remote sequelae as follows:

1. *Cancer.*—Carcinoma of the generative tract is the most frequent form of cancer seen in the female, and cervical cancer heads this list. There is much about cancer that no one understands, and carcinoma of the cervix is no exception. In our attempt to evaluate common cervical disorders from the precancerous standpoint, let us avoid controversial matters as much as possible, and be guided by evidence generally accepted today. The increasing evidence pointing to a questionable relationship between common cervical disorders and cancer need not at this time influence our acceptance of such relationship. The tie-up between common cervical disorders and cancer may be summed up in a few sentences. Cancer probably does not begin in healthy tissue; it is local in its incipiency, and there probably is a precancerous state even though we cannot, as yet, positively identify it. If we are willing to accept these statements, then there appears to be no good reason why these common disorders should not be viewed with suspicion—not alarm—and treated until cured. The simple yet generally-adequate measures for treating such disorders today, generally without inconvenience to the patient, no longer justifies indifference or watchful neglect. While not convinced of direct cause-and-effect relationship between some of these common cervical disorders and carcinoma, I still can see no good reason for their neglect. Therapeutic vacillation is bound to occur, but no physician should foster indecision regarding the advisability of clearing up any cervical disorder.

2. *Foci of Infection.*—In some respects the case against the infected cervix as a focus of infection is even more impressive. True, abundant direct data are again lacking, but the evidence is so strong that such relationship appears to be extremely likely. The anatomical location and histological structure of the cervix is ideal from the focal infection standpoint. And we may, therefore, well ponder why a focus in one part of the body (tooth, tonsil, gall-bladder, appendix), should be considered a serious menace to health, and yet an active infection of the cervical glands be viewed with indifference and its treatment characterized by neglect. The mere fact that, in the past, treatment of cervical infections has failed to show the spectacular general improvement sometimes noted following removal of other foci, means little. In years past methods of treating cervicitis were characterized by topical applications, and did no more toward the eradication of deep-seated cervical gland infection than did similar treatment in clearing up tonsillar infection. Certainly there is no justification in comparing removal, on the one hand, and topical application, on the other. Yet, such is the situation: the tooth, tonsil, and gall-bladder are freely excised, while the infected cervix, in the vast majority of instances, is subjected to treatment much less effective. I am not advocating random removal of the cervix—far from it; I do urge, however, wider recognition of the cervix as a probable focus of infection and more diligence in its treatment. The acute infection of the cervix is not so much a prob-

lem; it is the chronically-infected, presumably asymptomatic cervix that goes untreated. Few tissues in the body endure chronic infection without, sooner or later, showing local or general manifestation, and the cervix is no exception to this rule.

3. *Local Discomfort.*—As a source of local discomfort, the cervix plays no small rôle. True, patients seldom direct their complaints toward the cervix, but this is readily understandable. Generally speaking, women have only a vague idea as to the location of the cervix and, except during dilitation, the cervix is not particularly sensitive. Its response to trauma and irritation is, therefore, seldom manifest in the form of pain, but rather as more remote pelvic discomfort—interpretated differently by patients and variously described as soreness, bearing-down sensation, tenderness, dyspareunia and aching. Leukorrhea is another local manifestation of cervical origin. Except in acute cervicitis, this is seldom profuse, but like a chronic discharge from the nasal passages it is enough to cause inconvenience and discomfort. How often cervical infections cause dysmenorrhea, backache, urinary symptoms, can only be guessed at, but it is safe to assume that these symptoms do arise on the basis of cervicitis. The secondarily involved parametrial tissues in low grade chronic cervicitis may also account for some of the low backache commonly seen in women.

4. *Sterility.*—With contraception occupying an important place in contemporary social and medical thought, consideration of sterility may seem out of place. Yet to most gynecologists sterility has become an increasingly important problem. Judging from the number of patients who seek advice regarding nonfertility, it would appear that the number of nonproductive marriages is high indeed. This is further emphasized by the great demand for babies for adoption, the demand today being many times greater than the supply. Sterility, then, is a real problem, and one which not infrequently has its origin in some earlier disorder of the uterine cervix. The acutely-infected cervix prohibits upward progress of the sperm, but this phase is recognized and treatment generally instituted. It is the chronically-involved, seemingly innocent cervix that is overlooked even by competent gynecologists.

5. *Dystocia of Cervical Origin.*—The relationship here is seen in the slow or even total lack of dilation even after a long, hard labor. Severe cases due to a badly-scarred cervix are not common, but every obstetrician can recall one or more such examples. Less apparent, but real, is the slow dilatation even in the presence of adequate pains, occasionally seen in young, healthy women due to long-since forgotten cervical infection and its coincident increase in connective tissue. For the same reason, perhaps, cervical tearing is more likely to occur in women who have harbored cervical infection and acquired a liberal increase in connective tissue.

In considering common disorders of the uterine cervix, then, it is wise to think of late complications. The greatest significance of common cervical disorders lies not so much in their immediate effect but more in their ability to cause remote disease.

TREATMENT

Except for chronic cervicitis, the problem of treating common cervical disorders is no longer difficult. Whereas our predecessors had to choose between surgery and application of some antiseptic, physicians today have quite a wide choice. One reason why we may well be emphatic regarding treatment of cervical disorders is this wide choice and the fact that remedy no longer implies great expense, long hospitalization, and anesthesia. Today most of these disorders can be quickly and satisfactorily cared for by office treatment alone.

In general the only common disorders here discussed calling for surgical treatment are, (1) the occasional, extensively-torn, badly-scarred cervix, and (2), the extensively and chronically infected cervix, particularly in women past thirty-five years of age. Seldom does the simple laceration or the ordinary hypertrophy call for surgical intervention. The badly and chronically infected cervix which fails to respond to office measures is best treated by conization or electrosurgical coning out of gland bearing tissues. In our practice this method has completely supplanted the Sturmdorf operation. It requires but a few days' stay in the hospital, and its performance is many times simpler than the Sturmdorf technique. It must be remembered, however, that such procedure is no substitute for the simpler office measures in the vast majority of cases. Furthermore, stenosis occurs in about 6 per cent to 10 per cent of cases.

For acute cervicitis rest, cleanliness, and avoidance of intracervical manipulation appears to be the only safe treatment. Most cases subside quickly. While chronic cervicitis may respond to local therapy in the form of heat (cautery, coagulation, diathermy, copper ionization, etc.), many cases are stubborn and unresponsive. In women past the active child-bearing age, we have recourse to electrosurgical conization or to surgical procedures but, obviously, such radical steps are seldom warranted in younger women. The vast majority of erosions, eversions, cervical cysts and polyps are successfully treated by simple cautery. The wise choice for treatment for these conditions is indication of their responsiveness as well as effectiveness of methods used.

Certainly, with the remote sequelae of common disorders of the cervex so potentially hazardous, and satisfactory remedial measures so generally available, there is today no good reason why every diseased cervix should not be treated until cured. A diseased cervix is likely to be just as much of a health hazard as a diseased tonsil. Neither should be condoned. Because present-day views seem to indicate a definite relationship between these common cervical disorders and more serious disease usually manifest later in life, the advisability of treating any diseased cervix until cured should be a foregone conclusion.

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WHAT WE MAY EXPECT FROM TREATMENT OF BLADDER TUMORS*

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Discussion *by Robert V. Day, M.D., Los Angeles; Frank Hinman, M.D., San Francisco; A. A. Kutzmann, M.D., Los Angeles.*

DURING the past quarter of a century the fact that cancer must be recognized early to be successfully treated has not only been thoroughly appreciated by the profession, but has been the subject of one of the most intensive educational campaigns ever instituted for the instruction of the laity; yet, in as recent a publication as the *Journal of the American Medical Association* for September 12, 1936, we find such an authority as W. Carpenter McCarty stating: "Are we recognizing cancer early? In 1918, I began a series of observations to determine just what effect cancer campaigns were having on the actual sizes of cancers being removed surgically. As pointed out by Balfour, Harrington, and Rankin, only 25 per cent of the cancers of the stomach, 50 per cent of cancers of the breast, and 58 per cent of the cancers of the large intestine are operable when seen by surgeons. These figures have not changed appreciably over a period of fourteen years. There has been little or no change in the average size or percentage of those having glandular involvement in this same period." Unfortunately, cancer of the bladder is no exception to these findings; so we are confronted with the problem of what may be expected from our present methods of treatment in these cases.

MEDICAL LITERATURE OF THE LAST DECADE

During the last decade much has appeared in the medical literature relative to the treatment of tumors of the bladder. Activated by the enthusiasm of Coffey, the possibilities of total cystectomy have been thoroughly expounded, and various techniques for the transplantation of ureters into the bowel developed. In theory such a procedure seems to offer the most probable chance for complete cure. However, in practice these theories, for one reason or another, appear to fall down. If the growth has been discovered early, is it justifiable to resort to these more radical procedures necessitating the transplantation of the ureters and the total removal of the bladder? Few surgeons are willing to subject the patient to these multiple major surgical procedures for the treatment of small tumors, when resection, excision, or some form of thermal destruction offer a possibility of cure almost the equal of radical cystectomy, and with so much less risk to the patient's life.

REVIEW OF LOS ANGELES COUNTY HOSPITAL CASES

Desiring to ascertain, if possible, what these less radical procedures offered in the way of possible cures, Doctor Silver and I reviewed all cases of tumors of the bladder admitted to the Los Angeles County General Hospital between June, 1927 and June, 1934. The last date was chosen in order that at least eighteen months might elapse following the last treatment in order to more accurately evaluate the final results. There were 135 cases in the group, thirty-six of which were so far advanced that no form of treatment other than cystotomy was undertaken. This was done in eight cases; all died in the hospital. The group of ninety-nine remaining cases seems sufficiently large to suggest what is accomplished by our present methods of treatment in large charity hospitals with constantly changing visiting staffs.

METASTASIS

For instance, in the group studied, metastasis was found at autopsy in 8 per cent of the cases. Spooner, in a review of 167 cases seen at the Mayo Clinic between 1914 and 1931, found that metastasis occurred in forty-nine cases, or 29 per cent. He stated: "Only four of these forty-nine patients presented sufficient clinical symptoms to enable a positive clinical diagnosis of metastasis from tumor to be made." When one reflects that each of these cases was subjected to a most thorough clinical examination prior to surgery, and that in 25 per cent metastasis was discovered at the postmortem examination following their operation, I feel that we may accept these figures as accurate; which indicates that in one of every four cases of tumor of the bladder, metastasis has probably occurred. Therefore, after apparently successful treatment, we should not forget Ewing's observation that "a primary tumor may be at a standstill, while internal metastases are active." If this is borne in mind, the tendency to regard all cases as probable cures living two or three years after surgery will be less, and sufficient time allowed to elapse for these hidden metastases to become demonstrable before any method of treatment is evaluated. In the interim there is no contraindication to cheerfulness regarding the situation if we do not forget, as Keyes has recently stated, that cheerfulness, while the child of hope, is also half-sister to despair.

If this 25 per cent of metastasis is added to the usual mortality associated with ureteral transplantation and cystectomy, the chances of failure with this procedure will be about three to one of possible success.

RADICAL AND LESS RADICAL PROCEDURES

The advocates of less radical procedures, such as resection, stress the fact that if these cases were only seen earlier, greater success would reward their efforts; but, as McCarty has said, they are not being seen earlier as a group. This fact, instead of being ignored, should be accepted in any discussion of treatment of tumors of the bladder. In truth, the early discovery of malignancy has been so dinged into the ears of the laity that they are fast becoming like the villagers that refused to answer a call to a real fire by the small boy that turned in so many false alarms. Propaganda for

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the early discovery of malignancy has been so persistent at times as to almost reach the dimensions of a racket for scaring the laity into the doctors' offices. Let us keep scrupulously to facts, and by honesty retain our self-respect and that of the community. Deceitful propaganda, based on fear, is rapidly defeating its own purpose. We all know that the discovery of malignancy at an early stage does not always insure its successful treatment, as the laity has been led to believe, and as all urologists are aware who have ever attempted to stop the advance of a cancer of the prostate once it has reached dimensions sufficiently large to establish its diagnosis beyond question. Tumors of the bladder are no exception to this rule, that early discovery does not always mean probable cure.

LOCATION OF THE GROWTH

Too often the location of the growth, if it is discovered early, prevents its successful resection. O'Crowley, reporting on the cases recorded in the Carcinoma Registry, gives 10.2 per cent as occurring on the posterior wall and 7.5 per cent in the vault, the only location where comparatively simple resections are feasible and constitute but 18 per cent of the cases. Most bladder tumors, however, are too extensive for such methods of treatment, the vast majority occurring in locations involving the ureters or sphincter. Among the ninety-nine cases in this series from the Los Angeles County General Hospital, resection was done six times, three with transplantation of the ureters. There were four operative deaths, and one patient is living and well over three years after surgery.

MULTIPLE OPERATIONS

The responsibility of recommending these multiple major surgical procedures, including cystectomy, for the eradication of tumors of the bladder makes one hesitate, when as experienced a surgeon as G. G. Smith has recently reported transplanting forty-two ureters in twenty-eight patients with tumors of the bladder, with a mortality of 33 per cent. Certainly the patient, when confronted with such a situation, can hardly be blamed for taking his chances with a less hazardous procedure. Could the surgeon assure the patient that a positive cure would be his reward, even these hazards might seem justified; but the reports of the most ardent advocates of cystectomy do not show that such is the case. Quinby as recently as June, 1935, reports: "Ten patients to date have been treated in the above manner. Two are alive; one, a woman, at three years without evident recurrence; one, a man, at eight years with known recurrence about the rectum and prostate during the past year. Of the remaining eight patients two of the earlier cases died as a direct result of operation, which was imperfect in one way or another. The remaining six patients have died of recurrent cancer at longer or shorter periods after operation."

COMMENT

When such final results are reported from institutions like the Brigham Hospital, where every aid to the successful outcome of any surgical procedure is available, it seems justifiable for the less fortunately situated not to be stampeded into the undertaking of such major surgical tasks, but to be content with less hazardous methods of treatment. To men such as Quinby, the urologic profession is in the deepest debt for bravely taking advantage of their opportunities, trying out what seems theoretically feasible and then reporting the final results, discouraging as they are. Too frequently one reads of the technique that has been employed and the operative mortality, but is left in the deepest ignorance as regards the final cure of the patient after a period of five years or more.

ON PATHOLOGY OF BLADDER TUMORS

Such omission leaves as erroneous an impression with the reader as the essayists who report long-time results, but fail to state the nature of the malignancy treated. I do not intend to go into a discussion of the pathology of tumors of the bladder, but think it pertinent to state that I am of the belief that tumors of the bladder grow in size, but not in their degree of malignancy with the passage of time. Such being the case, comparatively benign tumors may, due to secondary infection and sloughing, assume the most malignant gross appearance and lead the most conscientious observer to believe he is dealing with a highly malignant condition; when, in fact, he is treating a rather benign tumor, the only malignant potentials of which are those resulting from secondary sepsis, hemorrhage, or urinary obstruction. To illustrate, there were reported by Judd and Phillips four patients suffering from carcinoma of the bladder, but still living and well over twenty years after radical bladder resection. When these operations were performed, Judd considered the growths malignant, yet a recent examination of the tissue showed three of them to be of Grade I or II, and the fourth Grade III. It seems self-evident that if cystectomy is done for tumors of Grade I, the incidence of subsequent recurrence should be nil, and the mortality approximately that of ureteral transplantation for extrophy of the bladder. The greatest scrutiny should, therefore, be exercised to determine in every five years' cure that the original tumor was of a high degree of malignancy, for none can justify such extensive surgical procedures except in the treatment of highly malignant conditions.

Unfortunately, when malignancy of the bladder has developed to a point where less radical means of treatment cannot be used, the possibility of cystectomy has usually passed due to the poor physical condition of the patient, the result of urinary sepsis, secondary anemia, or renal insufficiency. It is this type of patient that is usually encountered in the country's large hospitals.

VALUE OF RADIUM

The results of treating cancer of the cervix with radium made the urologists hopeful that equally gratifying results might follow its use in the bladder. This has not happened even in such splendidly equipped institutions as the Memorial Hospital, brilliant as the results have proved in

certain isolated cases. Barringer reports 39 patients, out of 205 treated, well after a lapse of five years, a 19 per cent incidence. Radium and x-ray were used eight times in our series. Seven of the patients are dead, one is alive and well. The apparent cure in his case has followed the implantation of the radon seeds about a recurrence of the tumor. In such application, radium seems to have its chief usefulness in urologic work. X-ray still remains a palliative measure in tumors of the bladder and, in the experience of the author, is seldom worth the effort or expense it incurs.

CONSIDERATIONS PRELIMINARY TO SURGICAL INTERVENTION

Before undertaking any form of treatment, it is natural for the surgeon to consider cases of malignant diseases in the attitude of "kill or cure." The condition being hopeless unless entirely removed, he naturally feels justified in adapting the most radical of measures. Certainly, this attitude is justified in those cases of malignancy where the possibility of cure is considerably greater than the probability of death associated with the operation. In cases of tumors of the bladder this frequently is not the case, for if we add to the mortality rate associated with ureteral transplantation that of cystectomy, and from the survivors subtract the 25 per cent of undemonstrable metastases, the possibility of cure becomes exceedingly slight; while the reported operative mortality from resection of tumors of the base of the bladder frequently exceeds 25 per cent. To find one out of four patients with tumors of the bladder alive after five years, no matter what the method of treatment used, is unusual.

WHAT TYPE OF PROCEDURE SHOULD BE SELECTED

Are we not then justified in assuming, under certain conditions, that a procedure which will prolong the patient's life is preferable to one that aims only at his cure? Hunt, in reviewing his experience at the Mayo Clinic, writes: "Excepting those lesions amenable to transurethral electrocoagulation, a most conservative estimate places the inoperability of major malignant lesions of the bladder at not less than 25 per cent." During 1926 and 1927, while members of the Mayo Clinic staff, Doctor Hunt and I treated this inoperable group of patients by transvesical destruction with diathermy. The tumors were all Grade III or IV in their degree of malignancy, and each was considered to be inoperable after careful suprapubic exploration. There were twenty-nine cases in the series. In July, 1932, the patients were traced; five were alive without evidence of recurrence all over five years after operation; two others had also lived over five years, approximately 25 per cent of five-year cures. Considering that these were all inoperable cases, the efficacy of this type of treatment seemed to me deserving of more careful consideration and possible wider application in less hopeless cases. Since then Counseller and Braasch have reported seventeen such cases from the Mayo Clinic records, all considered inoperable but treated by electrocoagulation. Nine of these had malignancy of Grade III or IV, and all had lived over five years following treatment.

In conclusion, they write:

> The use of diathermy in the surgical management of carcinoma of the bladder is gradually being extended. It has brought cases in which the condition formerly would have been regarded as inoperable, the growth as non-resectable, within the field of successful treatment. It is our impression that the advantages of diathermy as a transvesical procedure for inoperable or non-resectable lesions of both high and low grades has not been sufficiently recognized.

LOS ANGELES COUNTY HOSPITAL STATISTICS

In the group from the Los Angeles County Hospital, destruction with diathermy was used in seventy-seven of these cases thirty-four times through the urethra, forty-three times by transvesical exposure. Of the former group, eleven are living from three to five years after their transurethral electrocoagulation, a 33 per cent of apparent cures—not a very brilliant result when one considers that thirty of these thirty-four patients had papillary types of tumor presumably of a low degree of malignancy. These figures indicate how uncertain ultimate recovery is, once a diagnosis of tumor of the bladder has been made. Unquestionably, the poor final results were due in no small measure to the failure of these patients to come for a check-up. Crenshaw has shown that, since the establishment of a careful follow-up system among this type of case at the Mayo Clinic, the end-results have improved in direct proportion to the increase in the number of recurrences discovered and destroyed. The latter group of forty-three patients treated transvesically contained twenty-five tumors of papillary type, sixteen of whom are known to be dead and five alive over three years. Of the eighteen infiltrating tumors so treated, ten are known to be dead and but one alive over three years. Fourteen patients, or 35 per cent, died as a result of the operative procedure. Since there are six patients alive from three to five years, and twenty-four known to be dead, there would seem to be approximately a 25 per cent possibility of relief by this method of treatment, which is apparently as high an incident of possible cure as is to be expected by any method of treatment now known. Improvement of results in the future must evidently come from a reduction in the operative mortality in order that 35 per cent of the cases are not immediately eliminated from all possibility of cure. Some have felt that the high mortality was largely due to the involvement of the ureteral orifices in the cautery destruction. In the thirty-four cases treated transurethrally, it was noted that the ureteral orifice had been included in the cautery destruction in thirteen; in only one was convalescence effected. In the transvesical series a ureteral orifice was included twenty-nine times in the cautery destruction, and in ten it was considered a decided factor in an unsatisfactory convalescence if not a direct cause of the patient's death. In the series of twenty-nine inoperable cases referred to earlier, the extensive cautery destruction involved the ureteral office in all the fatal cases, and the re-

sultant inflammatory process extended in several cases along the course of the ureters to the perivesical tissue. Certainly, wherever possible, the insertion of a catheter into an involved ureter and its retention there during the first days of convalescence should be an aid in reducing one cause for the high mortality of transvesical thermal destruction. Apparently such destruction is best accomplished by diathermy; for of eight patients treated with the Percy cautery, four died immediately after operation and two others are known to be dead.

IN CONCLUSION

Surgical diathermy, both transvesical and transurethral, has in this group of seventy-seven patients resulted in seventeen operative deaths and seventeen apparent cures of from three to five years' duration.

We may conclude, then, that surgical diathermy offers a possibility of cure equal to the risk involved in its application. In other forms of treatment the risk of death at, or immediately following operation, appears much greater than the possibility of cure.

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DISCUSSION

Robert V. Day, M. D. (1930 Wilshire Boulevard, Los Angeles).—We should feel grateful to Doctor Bumpus for his efforts in the matter of "debunking" misleading propaganda about cancer in general, and bladder carcinoma in particular. Such frank criticism is ordinarily a thankless task, and the critic is all too frequently accused of being a reactionary. But Doctor Bumpus, with his well-known sound clinical judgment and background of experience, is entitled to speak with authority and is virtually immune to any such countercriticism which might be leveled against him. Moreover, Doctor Bumpus sees fit to disagree in most instances with those who advocate such radical procedures as total cystectomy and reimplantation of the ureters. Such measures seldom result in a cure, and in most instances must be accredited to an insufficient experience, wishful thinking or a considerable indifference to the patient's best interests, not to say his exploitation for the sake of performing spectacular operative procedures. The fact that a large percentage of individuals with cancer of the bladder already have metastases not clinically recognizable means, in most instances, that total cystectomy and reimplantation of the ureters (in case the patient survives the operation) was of no avail, and subjected the patient to great danger and needless distress. The absence of metastases can be assured only after the lapse of years or at autopsy.

About twenty years ago Leo Buerger gave us some statistics on bladder tumors which remain just as informative and authoritative as when first published. Analyzing a large series, he stated that 55 per cent were benign papillomas easily cured by electrodesiccation applied through a cystoscope; 37 per cent were papillary carcinomas, most of which were advanced; but a large percentage of these papillary carcinomas could have been cured by electrodesiccation either through a cystoscope or applied through a suprapubic cystotomy opening, had the early warning symptoms been heeded and proper treatment instituted at that time. The remaining 8 per cent are infiltrating tumors. Some of these last are, by reason of their location, susceptible of resection.

The series analyzed by Doctor Bumpus are from all urological services at the county hospital. I am perhaps familiar with a greater percentage of these cases than anyone else, not only because of conducting one of the active services, but also by reason of a certain contact with most of the services as chairman of the urology staff. Most of such cases on admission were far advanced and hopeless from the standpoint of cure. However, a great deal can be done in the way of palliative procedures by surgical diathermy or, as I have referred to it above, electrodesiccation—meaning the same thing.

Unless implanted cystoscopically in an unopened bladder, radium therapy has proved not only disappointing, but more often than not has been the cause of greatly added distress and suffering. The same applies to therapeutic x-ray, except mild doses for various palliative purposes. After extended experience with the Percy cautery, I find it ill-adapted to the treatment of bladder carcinoma for the reason that the extensive cicatricial tissue ensuing almost always results in ureteral stenoses with grave changes in the kidney following, unless the patient sustains a primary operative death.

The conclusion is, therefore, that practically all of the benign tumors and an overwhelming percentage of the papillary carcinomas could have been cured if an early diagnosis (followed by adequate therapy) had been made. There is usually one or more early symptoms present that should admonish the physician to consult the urologist. The most common, of course, is hematuria or some degree of dysuria. Every patient with hematuria should be subjected to cystoscopic examination unless it is a case of terminal hematuria resulting from a hyperacute posterior urethritis due to gonorrhea. In every case, with the above exception, the patient with hematuria should be cystoscoped at once, *not* delayed till the bleeding ceases.

One must bear in mind that even those patients with benign papilloma of the bladder, eventually die from carcinoma unless the papilloma is completely destroyed and a cure effected. After the papilloma has been destroyed by electrodesiccation, the patient should return for cystoscopic examination regularly every three or four months for a period of five years. By so doing, any local recurrences will be discovered while still small and, hence, easily destroyed. Even in benign cases local recurrences in the fourth year are not unusual.

Frank Hinman, M. D. (384 Post Street, San Francisco).—Several points of view in this paper merit careful consideration, and it is a privilege to discuss them briefly. First: The early diagnosis of tumors of the bladder has not been advanced. "Deceitful propaganda, based on fear, is rapidly defeating its own purpose. We all know that the discovery of malignancy at an early stage does not always insure its successful treatment." Second: The grade of malignancy of a tumor is constant from beginning to end. "Tumors grow in size, but not in their degree of malignancy with the passage of time." Third: Radium and x-ray are the great disappointments in the treatment of vesical carcinoma. Fourth, as regards surgery: Tumors, even when discovered early, will be located in a position which would permit resection in less than 20 per cent. Even in these cases the results of surgery are poor. The mortality of uretero-intestinal implantation and cystectomy is high (cited: 33 per cent, G. G. Smith; 20 per cent, Quinby) and the chance of cure is so small (cited: 10 per cent, Quinby) as to impeach the operation.

Let us examine the conviction of mind implied in these four assertions, and the conclusion that diathermy is the one method of choice for the treatment of all tumors.

From the surgeon's point of view, an early diagnosis is one which antedates extension locally and the onset of metastases. It has no reference to duration. There certainly can be no objection to an early diagnosis in this sense, and the results should be analyzed and compared accordingly. The fact that an increase in the number of early diagnoses has not been made is no argument against the advantages of such a diagnosis. As to the citation of Quinby's discouraging results with surgery, apparently only one of his patients had an early diagnosis. In Bumpus' own series, 36 of 135 patients had cancer so far advanced, on the patient's admission to the county hospital, that any form of treatment was hopeless. Twenty-five others had metastases, which put them into the same class. How many of the remaining patients had an early diagnosis is not stated. It is probable that a diagnosis had been made in the majority and that many had been given some form of treatment before their admission. This is a cause of real discouragement to surgeons. If the diagnosis

is early, the decision to operate should be made in the few weeks after the discovery of the tumor and not put off until years later. Then it is too late, because, no matter how well the local appearance has been kept in check by repeated fulgurations, the growth probably has extended locally and spread elsewhere. The difficulty in making this decision is serious and distressing, and is bound up with our ideas of the variability in the malignancy of these tumors.

From the standpoint of treatment, tumors of the bladder are of two kinds—benign and malignant—and all benign papillomata are potentially malignant and recurrent. Twenty-five years ago Beer introduced the use of fulguration, and the perfection of this method has revolutionized the treatment of tumors of the bladder. With regular follow-up for recurrences and implantations, fulguration (diathermy) undoubtedly cures benign and malignant papillomata. To advocate surgery in these cases would be criminal. Frequently the clinical differentiation between malignant papilloma and papillary carcinoma (infiltrating) is impossible, and biopsy reports are often unreliable. A trial of fulguration in such an instance is proper. No doubt many early types of papillary carcinoma are cured by diathermy. Indecision and doubt arise when the response is slow and recurrence regular; this is the time to consult with the patient and to decide for or against surgery. The delay, which in many cases, unfortunately, has been justified, too often has made this a late, instead of an early diagnosis, as it was when the tumor was first discovered. With other tumors frankly malignant and infiltrating on first study, a test period of diathermy, provided surgery is contemplated, is not indicated. The important question, once the malignancy is established pathologically, is: has it spread from its primary location to adjacent structures, to lymph nodes, to bones, or elsewhere? If a careful study gives a negative answer, surgery is indicated. In my experience, the grading of tumors after Broders gives no advantage in answering the foregoing questions, except in the case of papillary carcinoma in which a grading of three or four might hasten a decision in favor of surgery. A low grade of malignancy in squamous-cell carcinoma, on the other hand, is no argument against surgery.

Many still adhere to the use of radium and x-ray therapy. My experience with radiotherapy corresponds to that of Doctor Bumpus'. However, many tumors not curable by radiation are radiosensitive and irradiation preliminary to resection seems logical, particularly if the difficulties of technique are considered as the principal cause for the poor results. The need of radiation before cystectomy is not similar.

The clean resection of a vesical cancer, usually vascular, friable and much more extensive than judged cystoscopically, is extremely difficult—much more so than total cystectomy. The removal of such a tumor with a wide margin of healthy wall without spreading tumor cells all over the operative field or squeezing them into lymph and blood vessels is not easy, particularly when the tumor is posterior and near the ureteral orifice or trigone, as the majority of them are. Beer has emphasized the advantages, when making resections, of using the electric cautery and cautery knife, and of flushing the whole field with alcohol afterward. Even with these precautions the chance of a complete clean removal is small. Preliminary radiation, perhaps by attenuating the growth and thereby diminishing the risk of implantation at the time of surgery, may increase the likelihood of cure. When one considers, in connection with these technical difficulties, the small proportion of cases in which the position of the tumor (20 per cent) and an early diagnosis (uncertain) give an indication for resection, it is no wonder that the few successes are lost in the mass of failures. The decision to resect a tumor of the bladder, therefore, should be based on the most rigid indications, and all the refinements of technique should be followed most conscientiously. Even then cures will be fewer than with total cystectomy in comparable cases because removal of the bladder unopened and intact removes the great risk of implantation. It is for this reason that total cystectomy is a better surgical procedure and one which would replace resection completely were it not for the limitations imposed by the necessity of diversion of the urine. The cures in a series of patients operated upon at the period of early diagnosis (growth limited to the bladder) who survive ureteral transplantation and cystectomy should be near 100 per cent and not the one cure in ten of Quinby's series, held up by the author as an impeachment of the operation. To my mind, Quinby showed poor judgment in the selection of his test material, and his results in ten patients—in seven of whom at least the growth had spread beyond the bladder—form no argument against performing cystectomy for patients in whom the growth is limited to the bladder. Doctor Bumpus cites a mortality of 35 per cent for so-called surgical diathermy, which is considerably higher than Quinby's 20 per cent for cystectomy. This risk, therefore, cannot be prohibitive, since he takes a greater risk with less promise of cure.

In conclusion, I would say that all of these methods have a place in our attack on cancer of the bladder. Fulguration (diathermy) undoubtedly is the most useful. X-ray and radium may be useful at times. Resection has definite limitations. Ureteral transplantation and cystectomy should be done for patients with an early diagnosis and not left as a measure of last resort, as it has been. Ureteral transplantation and surgical diathermy should be resorted to occasionally when clean cystectomy is found to be impossible. Previous diversion of the urine will reduce materially the high mortality which is caused principally by ureteral obstruction and infection; much more radical electrocoagulation is permitted because there is no fear of ureteral obstruction and the bladder is no longer needed.

A. A. Kutzmann, M. D. (1930 Wilshire Boulevard, Los Angeles).—Doctor Bumpus' paper is so comprehensive that one cannot add anything, merely further emphasize some of the important points. The treatment of tumors of the bladder has always been a bugbear to the urologist. In so many of the cases he seems almost defeated in his endeavors before he even begins. This may be considered as due to several facts. First, the insidiousness of the onset of this disease. Too often bladder tumors are silent until developed far along, before the first danger signal is detected, probably an hematuria, or some other less significant disturbance in urination. Secondly, the lack of proper recognition of signs and symptoms by the general practitioner. Too often the physician and patient are lulled into a false sense of security because an hematuria was present on only several voidings, or for one day and disappeared spontaneously, only to reappear later when the case is beyond help. Let me make a plea here for the immediate proper investigation of any hematuria, no matter how apparently insignificant. Statistics have shown that almost one-half of all hematurias are due to some type of new growth in the urinary tract. This sign may well be classified with the early detection of a lump in the breast. The physician and patient should never be satisfied until a proper explanation for the hematuria has been found. It can be seen, therefore, that the first and second factors prevent the probability of an early recognition, which is so paramount. This, however, accounts for only a part of the cases, since in many others, as has already been pointed out, signs and symptoms appear for the first time only after the growth has become far advanced.

Third, all tumors of the bladder are potentially or definitely malignant. This is a hard fact driven home repeatedly to all individuals who have had experience with these growths. Even an occasional growth, benign under the microscope, will recur at times leading to the clinical course of a mildly malignant growth. While it does not always seem so, I have been forced to the conclusion in some cases that, as the course of bladder tumors advances, especially while being treated, the degree of malignancy seems to increase. This I have believed to be due to a stimulation and irritation of the urinary infection and treatment; especially with the latter it has appeared that insufficient fulguration through the cystoscope or the action of radium seemed to occasionally flare up some of the carcinomata to a more rapid growth and a more extensive infiltration. Fourth, most bladder tumors are usually situated about the vital portions of the bladder—the trigone, ureteral orifices, and vesical neck. Since the bladder is an organ upon whose good function depends the well-being

of other organs, there results the encountering of many technical difficulties from these structures, especially in the surgical treatment of bladder tumors, such as resection with ureteral reimplantation, ureteral transplantation, cystectomy, etc. These, under our present state of development, still carry a very appreciative mortality.

I heartily agree with Doctor Bumpus that the diathermic destruction of bladder growths, especially the large ones, should receive more consideration. It is true that the basic principles in cancer surgery call for the complete dissection of the growth with its draining lymphatics, but this is not always practical in bladder surgery. The technical operative difficulties seem to impose too great a burden on the patient, leading to high mortality. It is beautiful, spectacular surgery for the surgeon, but does not necessarily help the patient. Even if the patient survives this increased surgical risk, morbidity still shows, regardless of the type of treatment, that only 20 to 25 per cent of patients are alive after the usual three- to five-year cure period. Too often these patients are seen late, either because of failure to recognize early signs or the long, insidious course of the disease; there have occurred permanent destructive changes due to infection, obstruction, ureteral dilatation and renal damage, resulting in additional risk for any type procedure. The use of diathermy under complete vision through an open cystotomy, especially in cases giving an almost hopeless prognosis, has made it possible to completely destroy an appreciable number of these growths, especially when extensive, and to finally end up with as many cases benefited as with the other more formidable procedures. The writer has known of a patient to be well after ten years following the diathermic destruction of a Grade 4 growth through a cystotomy.

ENTERITIS OF UNKNOWN ORIGIN*

REPORT OF AN EPIDEMIC IN A CHILDREN'S INSTITUTION: 27 CASES WITH 6 DEATHS

By J. C. Geiger, M.D.
San Francisco

BETWEEN February and August, 1936, an outbreak of enteritis occurred in an institution for young babies. The institution is a home for infants, and the physical plant consists of three attractive, well-built, well-planned cottages. The facilities available for the care of infants are excellent, and the four different wards and three other smaller rooms permit of adequate isolation for individual babies or small groups of infants.

FIRST REPORTS

It would seem appropriate to invite attention to certain circumstances involved in the recent incident to be described, and the part played by the Department of Public Health. Babies, to the number of at least 27 were affected, and 6 of these died, during the period of February to August, 1936. The 6 deaths occurred April 10, April 12, May 10, June 4, August 1, and August 10, and the causes of death given included enteritis (unqualified, and as one of two or more causes), and others, as otitis media, mastoiditis, congenital cyst of the cerebrum, and bronchopneumonia. The Department was uninformed, however, of any other instances by the attending physicians or by the other physicians whose advice was sought in consultation or discussion. On routine inspection of the home, for renewal of permit, and following an anonymous inquiry as to "whether everything is all right in that institution," it was learned that there had been 27 cases and 6 deaths of an affection that had presented definite diagnostic difficulties as well as a definite epidemiologic problem. It is very regrettable that the incident was not reported to the Department of Public Health, for the study that it was possible to make was entirely in retrospect, and reporting of the incident would have permitted a concurrent epidemiologic study which might have been more fruitful.

PREVENTIVE MEASURES

As immediate measures instituted in August, against further cases, no admissions were permitted to the institution, and discharges were to be made only after complete recovery of the child and freedom from all clinical signs of the affection. This limited the incidence to the occupants of the home. For the succeeding period of about four weeks no new cases developed, and the outbreak completely subsided. Laboratory studies of specimens from members of the staff and personnel failed to reveal the carrier state for any of the organisms related to the enteric fevers. Since certain epidemiologic points of interest had not been secured, the study was undertaken in an attempt to compile relevant information from all available sources.

IMPRESSIONS

From the accumulated data, the following impressions are formulated:

1. In both cases and deaths, distribution was equal between males and females.

2. The mean age (on admission), among those affected approximates 30 days, the median being 20 days; in the deaths, however, ages on admission to the institution were 9, 5, 49, 45, 127, and 101 days, respectively.

3. The date of onset in the first cases recorded was February 25 (in cases 1 and 2), 4 and 5 days after admission, respectively.

4. Additional instances occurred for slightly more than five months to the total number of 27, at intervals (between dates of onset of successive cases), of from 7 to 21 days.

5. The time intervals between date of admission and date of onset in individual cases, as nearly as can be ascertained from the record, varied from 1 to 33 days. The longest intervals were 19, 24, and 33, and the shortest was one day. These, possibly even the two and three days' periods also, should be discarded before attempting to determine a mean for the series. It would appear that the normal period between admission and onset dates were seven days, although a variation of four days above or below this mean should be allowed.

6. From the case records alone, it is impossible to formulate accurate impressions of the severity of the diarrhoea. Vomiting, while it did occur, was not always present. In evaluating diarrhoea, one is confronted with meager information from the case records also. An arbitrary definition of a definite change in the number of stools with description of "curdy," "loose," or "watery," and four to five or more stools daily without qualifying

* From the office of the Director, Department of Public Health, City and County of San Francisco.

description, was set up by the Department of Health.

7. Nervous system involvement, *per se*, was not described on the case record. In a supplementary tabulation eye signs, restlessness, opisthotonus, paralysis, paresis, and spasticity of extremities were recorded by the institution's physician.

8. Laboratory study of blood, stool, and cerebrospinal fluid were unproductive of significant findings.

9. In the supplementary tabulation by the institution's physician, other physical signs are recorded, as "cold extremities," "mottled skin," "cyanosis," which might be interpreted as neurocirculatory changes, but these are not recorded on the case records.

10. Abdominal distension, congested mucous membrane of the throat, loss of weight, dehydration, edema, were all mentioned in the supplementary report of the institution's physician, also; but, again, these are not included in the regular case record.

11. Autopsy findings present no apparent consistent and uniform changes. Definite meningitic reactions were recorded in two instances. Hemorrhagic necrosis of the lining of the lateral ventricles with clumps of blood pigment in the spleen and early pneumonia appeared in two other cases. Otitis media and mastoiditis occurred in one instance. In the first death no definite pathology was noted, and in only two other instances were there any significant changes in the gastro-intestinal tract; in one, a thrombosis of the epiploic veins with points of hyperemia in the wall of the stomach; and in one, mild enteritis without ulceration was recorded.

12. The duration of the illness varied from six to twenty-eight days.

13. The case fatality rate of the series studied, six deaths in twenty-seven cases, is 22 per cent.

SUMMARY

When the Department of Health first learned of the incident which is the basis for this study, about the middle of August, approximately six months after the probable original cases, and the whole subject was discussed with the officials of the institution, it was evident that the affection was a diagnostic problem. From the data available and used in this study, also, there is still a diagnostic problem. The epidemiology, likewise, is obscure. There was some suspicion at the first that the cases were due to a virus, or caused by an atypical form of dysentery with neurologic manifestations. There is no evidence, however, at this time to support either theoretical possibility, except the absence of positive bacteriologic and pathologic data.

One is impressed that the whole series of cases originated in the one or two children admitted in February, apparently with an affection manifesting itself primarily in a diarrhoea, the resulting infection-chain continuing for over five months, involving at least 27 infants, with six fatalities, through some channel not closed by the isolation techniques at first practiced.

101 Grove Street.

ACUTE ANTERIOR POLIOMYELITIS: GYNECOLOGIC SYMPTOMS*

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DISCUSSION *by Donald G. Tollefson, M.D., Los Angeles; Margaret Schulze, M.D., San Francisco; L. A. Emge, M.D., San Francisco.*

IN the recent epidemic of acute anterior poliomyelitis in Los Angeles, during the spring of 1934, and 1935, many unusual symptoms and physical findings were observed. In investigating records of previous epidemics, these unusual features were not recorded and probably did not occur. Among the female patients the prevalence of menstrual dysfunctions, typically appearing at the first menstrual period after the onset of the disease, has led to a more thorough investigation of this particular phase.

It is not our purpose, in presenting this paper, to discuss the epidemiology, symptomatology, or clinical aspects of poliomyelitis. It is important, however, to consider briefly a few of the characteristic features of the Los Angeles epidemic, to enable us to obtain a better understanding of the gynecologic problems presented.

SPECIAL FEATURES IN THE LOS ANGELES OUTBREAK

As you will recall, poliomyelitis, in its typical form, occurs in two distinct types, namely, bulbar and spinal. It is the spinal type with which we are primarily concerned. In the spinal type the motor cells in the anterior horn of the spinal cord are involved, producing a motor paralysis of the skeletal muscles. The paralyses are of the flaccid type, resulting in muscular atrophy from disuse. This usually results in a partial or a total paralysis of the muscle groups affected, which may be temporary or permanent, depending upon the severity of the process. In an article, entitled "Poliomyelitis—The Los Angeles Epidemic of 1934," by Meals, Hauser, and Bower, which appeared in two issues of CALIFORNIA AND WESTERN MEDICINE, August and September, 1935, the authors call particular attention to the atypical paralyses characterizing this epidemic. "The objective findings," they state, "were as atypical as the subjective symptoms. Muscle weakness was often very mild or transient, but pain on motion was sometimes pronounced. Frequently, muscle checks showed no weakness nor asymmetry, sometimes no pain, but a marked fatiguability of the affected extremity on repeated tests. Involvement of sensory as well as motor areas of the central nervous system was demonstrated both pathologically and clinically. Symptoms were present in some cases which indicated involvement of the sympathetic nervous system. Recovery has apparently been complete in 80 per cent of patients, some of whom had been severely paralyzed. Sequelae included symptoms of psychogenic and sympathetic nervous system origin."

* Read before the Obstetrics and Gynecology Section of the California Medical Association at the sixty-fifth annual session, Coronado, May 25-28, 1936.

In a paper presented to the Mayo Clinic staff meeting in July, 1934, Rosenow, Heilman, and Pettet referred to this epidemic as polio-encephalitis. Other investigators have called attention to the apparent combination of symptoms and signs resembling encephalitis as well as poliomyelitis, producing a preponderance of neurogenic and psychogenic symptoms. Attention has also been directed to the apparent involvement of the sympathetic and the parasympathetic nerve roots, both sensory and motor. The typical involvement of the anterior horn cells, as previously seen in poliomyelitis, while present in a few instances, has been fleeting in character, producing transitory paralyses for the most part, and entirely absent in the majority of cases. Because of the atypical nature of this epidemic, Aycock of Boston has suggested that it be designated as "Los Angeles Disease X."

ATYPICAL NATURE OF THE LOS ANGELES OUTBREAK

The clinicians in Los Angeles, who have had these patients under their observation, agree that if this disease is to be called poliomyelitis, it must be recognized as an atypical manifestation of the process. It does not conform to the previous symptomatology or clinical findings generally associated with typical poliomyelitis. We present these observations since we feel that they have an important bearing on our present problem, especially since menstrual irregularities have characterized this disease in the female patient, but have not been reported in any previous epidemics of typical poliomyelitis. To prevent confusion, however, we will continue to refer to the disease as poliomyelitis in our discussion.

MENSTRUAL DYSFUNCTION FEATURES

This brings us to our consideration of the gynecologic problems in this epidemic. The manifestations of menstrual dysfunction have not only been present in the early, acute stages of poliomyelitis, but, for the greater majority, they have continued through the prolonged stages of the convalescent period.

Some 112 patients, employees of the Los Angeles County General Hospital, were interviewed and studied in an attempt to obtain a more accurate picture of the various types of menstrual disorders encountered. This group is composed of doctors, nurses, social service workers, laboratory technicians, and hospital attendants, who concontracted the disease during the epidemics of 1934 and 1935. They were all admitted to the contagious unit of the General Hospital for the usual isolation period. They are still under observation and are receiving treatment, although many of them have been able to return to full or part-time duty.

PRESENT WORKING STATUS OF ONE HUNDRED AND TWELVE PATIENTS

It is of interest to analyze the present working status of this group of patients. We will present these statistics in a little more detail than may seem necessary, since we have been convinced, as a result of this survey, that the disturbances in menstruation have played an important rôle in the prolonged convalescent periods and for the consequent loss of working time.

Table 1.—*Analysis of 112 Patients as to Present Status*

112 Patients— Both Epidemics (1934 and 1935)
70 patients in the 1934 epidemic group.
42 patients in the 1935 epidemic group.
58 patients now in hospitals or rest homes (both groups).
54 patients ambulatory—attending clinics (both groups).

There are seventy patients who contracted the disease in 1934, and forty-two patients who belong in the 1935 epidemic group. These figures confirm the observation that the 1934 epidemic was by far the more extensive of the two. Of the 112 patients studied, fifty-eight are still confined in the various hospitals and rest homes, as shown in Table 1. This figure represents 51 per cent of the total number of patients in both the 1934 and 1935 epidemic groups included in this survey. Ambulatory are fifty-four patients, now attending the various follow-up clinics.

In Table 2 the following facts may be noted. In the 1934 group, thirty-five patients are still hospitalized and thirty-five are attending the clinics. Of the thirty-five patients now hospitalized, twenty-five have been off duty since the onset of the illness for an average of eighteen months each. Ten of this group have tried to return to duty, working at short intervals, for a total average of about four months each. All in this group of ten have had relapses and are now off duty. Of the thirty-five patients who are ambulatory and attending clinics, eleven have not returned to duty since the onset of the disease in the spring of 1934; twenty-four patients in the ambulatory group are now on full or part-time duty, but the total average working time has been less than five months each over a period of eighteen months.

In Table 3 we recapitulate the seventy patients representing the 1934 epidemic in our survey, including both the hospital and clinic groups. This reveals the rather startling fact that forty-six patients are still off duty one and one-half years after the onset of the disease, and that thirty-six have been off duty for the entire period of eighteen months. Only twenty-four of this group are now on duty; ten have been able to work a few months each, but are not working at present.

Table 2.—*Working Status of 1934 Group*

Analysis of the 1934 Group of Seventy Patients
35 now in hospitals or rest homes.
25 off duty since onset—average eighteen months.
10 off duty at present. Have worked at intervals for a total average of four months each.
35 ambulatory. Attending clinics.
11 off duty since onset—average eighteen months.
24 on duty at present. Average working time, five months each.

TABLE 3.—*Recapitulation of the 1934 Group—Working Status*

Recapitulation of the 1934 Group
46 off duty at present.
36 off duty since onset—average eighteen months.
10 off duty at present. Have worked at intervals for total average of four months each.
24 on duty at present. Have averaged a total of five months' working time each in past eighteen months.

The thirty-four patients who have worked or who are working now, have only averaged a total of five working months during the past eighteen months. It is quite apparent from these statistics that, in addition to the medical problems presented, we are also confronted with an important economic problem, since all of these patients have been or are now drawing compensation.

A similar analysis of the forty-two patients from the 1935 epidemic, as shown in Table 4, reveals the fact that twenty-three are still hospitalized and that nineteen are attending clinics. In the hospital group, only three have been able to return to duty, working an average of one to two months each. Relapses have occurred, and they are now off duty. In the clinic group of nineteen, three patients are still off duty, while sixteen of this group are now working an average of less than two months each.

In Table 5 a recapitulation of the 1935 epidemic, including both the hospital and clinic groups, gives the following information: Twenty-six are off duty at present; twenty-three have been off duty since the onset of the disease for an average of eight months each; three have made an attempt to work, but are off duty now, having averaged less than two months working time each. There are sixteen in this group who are working at present, but have averaged less than two months each.

COMPARISON BETWEEN THE 1934 AND 1935 OUTBREAKS

As a result of this comparative analysis, we were immediately impressed with the fact that the relative time off duty is much greater in the 1934 than in the 1935 epidemic. The latter group has returned to duty much earlier and has lost far less working time. This finding may be explained on two possible bases:

1. It is generally conceded that the 1935 epidemic was less severe than the 1934.

2. On the basis of previous experiences with the sequence of events in the 1934 group, recurrences or relapses may yet occur which will necessitate an additional loss of working time.

It is to be sincerely hoped that this does not prove to be true.

TABLE 4.—*Working Status of 1935 Group*

Analysis of 1935 Group of Forty-two Patients
23 now in hospitals or rest homes.
20 off duty since onset—average eight months.
3 off duty at present. Have worked at intervals for total average of two months each.
19 ambulatory—attending clinics.
3 off duty since onset—average eight months.
16 on duty at present. Average working time two months each.

TABLE 5.—*Recapitulation of the Working Status of 1935 Group*

Recapitulation of the 1935 Group
26 off duty at present.
23 off duty since onset—average eight months.
3 off duty at present. Have worked at intervals for total average of two months each.
16 on duty at present. Average working time two months each.

AGE INCIDENCE

In the article by Meals, Hauser, and Bower, previously referred to, the authors call attention to another interesting feature of the Los Angeles epidemic, namely, the increased incidence among young adults as well as an increase in the later decades. The age incidence of our group would seem to corroborate this observation. The youngest patient in our series was eighteen years of age at the onset of the disease; the oldest, forty-nine.

Listing the 112 patients by five-year age groups, the following information is obtained, as illustrated in Table 6:

There were six patients below the age of 20 at the onset of the disease.

Fifty-two patients between the ages of 20 and 25.

Twenty-five patients between the ages of 25 and 30.

Thirteen patients between 30 and 35.

Six patients from 30 to 40, and ten patients above the age of 40.

In other words, 74 per cent of the patients in our series were below thirty years of age. The greatest incidence was between the ages of 18 and 25, representing a total of fifty-eight patients, or 52 per cent of the entire group. These figures are of major importance to us in analyzing menstrual irregularities, since the heaviest age incidence of the disease coincides with the most active period of sexual life.

It is known, from previous epidemics, that poliomyelitis has always been primarily a disease of children and young adults, rarely involving adults beyond their early twenties. In our series, twenty-nine patients were over thirty years of age at the time of onset of the disease. This is another one of the rather unusual features of the

TABLE 6.—*Age Incidence by Five-Year Groups*

Age Incidence at Onset of Disease—By Five-Year Age Groups	
Age Group	Number of Patients
Below 20	6
20-25	52
25-30	25
30-35	13
35-40	6
Above 40	10
	112
Below 30—74% Above 30—26%	Heaviest incidence 18-25—52%

TABLE 7.—*Analysis of Cases to Be Presented for Disturbances in Menstruation*

112	cases presented in the survey.
4	cases discarded.
2	previous hysterectomy.
2	menopause prior to poliomyelitis.
108	cases to be analyzed.

Los Angeles epidemic. In our survey, however, it must be remembered that we are dealing with hospital employees. It is to be expected that the heaviest incidence would be between the ages of 18 and 25, since the largest occupational group is represented by student nurses. We could not expect to have patients younger than eighteen, since this age represents the minimum requirements for entering student training.

PATIENTS INCLUDED IN THIS STUDY

We wish to emphasize at this point in our discussion that our survey includes 112 consecutive patients seen by us in the various hospitals and clinics wherein they are now being treated. These cases have not been selected at random for the sake of statistics. This statement will be self-evident, as we individualize the various types of response to the disease from the standpoint of the presence or absence of disorders in menstruation.

In recording the menstrual histories of these patients, four of the group of 112 could not be included; two have had hysterectomies performed several years prior to the onset of poliomyelitis. The remaining two had not menstruated for from three to five years before the onset of the disease, having been definitely in the menopause a sufficiently long interval before the onset to experience no subjective changes. There remain 108 cases to be presented for our analysis of menstrual irregularities.

DYSMENORRHEA

Dysmenorrhea has proved to be the most distressing symptom in the syndrome, as well as the one most constantly present. In the following discussion, unless attention is especially directed to the menstrual history before the onset of poliomyelitis, it is to be understood that menstruation was essentially normal; ninety-two, or 85 per cent of the 108 patients, having reported dysmenorrhea as being the most prominent gynecologic complaint following poliomyelitis. Obviously, this one symptom occupies a position of major prominence in enumerating the gynecologic sequelae of poliomyelitis.

TABLE 8.—*Types of Menstrual Changes Following Poliomyelitis*

92	—Dysmenorrhea following poliomyelitis (85 per cent).
7	—No change in menstruation.
2	—No dysmenorrhea. Poliomyelitis prodromal symptoms with onset of every menstrual period.
5	—No dysmenorrhea—decreased menstrual flow.
1	—No dysmenorrhea—menstrual cycle shortened. Increase in daily blood loss.
1	—Dysmenorrhea disappeared after poliomyelitis.
108	cases analyzed.

Two patients reported no dysmenorrhea, but complained of very severe poliomyelitis prodromal symptoms, beginning about a week before the onset of each menstrual period and continuing through the entire menstrual phase. The symptoms complained of are severe headaches, aching in the arms and legs, nausea, vomiting, general malaise, anorexia—in brief, the typical symptom complex which characterized the prodromal stages of poliomyelitis. The symptoms are of such a severe nature that bed rest is required for two to three days of every month.

Five patients reported no dysmenorrhea, but noted a marked decrease in menstrual flow; three of the five had a six months' period of amenorrhea immediately following the onset of poliomyelitis. After this period of amenorrhea, menstruation was reëstablished, but it has been of the totally irregular, unpredictable type, associated with a marked decrease in the number of days of menstrual flow and a decrease in the daily blood loss.

The remaining two of the five patients reporting decreased menstruation noted a marked decrease in the number of days of menstruation. The average flow of five days before the onset of poliomyelitis was decreased to two days following the disease. There has been an accompanying decrease in the daily menstrual volume. With one the interval remained the same, twenty-eight days, while the other illustrates the long-interval type of irregularity, prolonged to forty days from the previously normal twenty-eight-day cycle.

An increase in menstrual flow, following poliomyelitis, is reported by one patient. The cycle has been changed from the normal, 28 x 4-day type, to 21 x 7 days, with a marked increase in daily blood volume. No dysmenorrhea accompanied this change. The last patient shown in Table 8, presenting a cure of dysmenorrhea following poliomyelitis, has an interesting history, which will be briefly outlined. Prior to the onset of the disease, this patient had an irregular menstrual cycle, of the long-interval type, averaging thirty-five to forty-five days. The daily menstrual flow was very heavy, at times amounting to a hemorrhage. The flow was never less than fourteen days' duration. Severe dysmenorrhea occurred with every menstrual period, seven days premenstrual and lasting through the entire menstrual phase of fourteen days. Beginning with the first menstruation after the onset of poliomyelitis, the dysmenorrhea disappeared entirely and the menstrual cycle became regular, 30 x 4 days, with a normal daily flow.

GROUP CLASSIFICATIONS

It would be impossible to present the histories of 108 patients in detail. We have made an attempt to classify them as accurately as possible in a few characteristic groups. In eliciting symptoms, particularly the symptom of pain, we are all familiar with the difficulties encountered in evaluating its severity or intensity. After a careful analysis of these symptoms, we feel that we can

TABLE 9.—*Severity of Dysmenorrhea Following Poliomyelitis*

14 mild.
14 moderately severe.
14 severe.
50 very severe.
92 patients with dysmenorrhea following poliomyelitis.

present a fairly accurate picture of the severity of the dysmenorrheas. Accordingly, an arbitrary classification has been made of mild, moderately severe, severe, and very severe, in an attempt to qualify the degree of pain elicited in our histories.

Table 9 illustrates this classification. We also note in the above analysis that fifty of the ninety-two patients reporting dysmenorrhea after poliomyelitis have complained of the very severe type of pain.

In a more detailed analysis of the group of ninety-two patients complaining of dysmenorrhea after poliomyelitis, we discover the very interesting fact that fifty-two had never had this symptom before the onset of the disease. In other words, 57 per cent of this group, presenting dysmenorrhea as the prominent symptom following poliomyelitis, had not previously experienced painful menstruation. Forty patients of this group did have dysmenorrhea before the onset of the disease, but the majority complained of a sharp increase in the intensity of pain following the illness. This group will be analyzed later on in our discussion. In a compilation of symptoms, as given by the group of fifty-two patients who had not had the symptom of dysmenorrhea before the onset of poliomyelitis, the following information is obtained, as illustrated in Table 11:

Twenty-four patients of this group gave dysmenorrhea as the only menstrual symptom. Ten patients reported very severe dysmenorrhea associated with a marked decrease in menstrual flow. (Alterations in the interval, duration, and character of the flow are listed separately in Table 11.)

Nine patients reported very severe dysmenorrhea associated with a profuse menstrual flow.

Three patients have very severe dysmenorrhea every third period.

Three patients have totally irregular menstruation of the unpredictable type, also associated with the very severe type of painful menstruation.

REPORT OF CASES

The three case histories to be presented are as follows:

CASE 1.—Student nurse, age 22. Onset of poliomyelitis, June, 1935. Menstrual history before poliomyelitis: regular, 28 x 7-day type, profuse daily flow. On three occasions she had a sharp hemorrhage, beginning with the menstrual flow. In January, 1934, eighteen months before the onset of poliomyelitis, she flowed steadily for two and one-half months, requiring a blood transfusion, dilatation, curettage, and injections of Antituitrin S. This treatment successfully stopped the hemorrhage, but the profuse menstrual periods continued up to the onset of poliomyelitis. There was no dysmenorrhea associated with the abnormal menstruation. After the onset of poliomyelitis, the interval remained the same—twenty-eight days; but the duration has been decreased to two days, with a very scant daily blood volume. There has been very severe dysmenorrhea, beginning the first period after the onset of the disease, both premenstrual and menstrual.

* * *

CASE 2.—Student nurse, age 20. Onset of poliomyelitis, June, 1935. Menstrual history before poliomyelitis: regular, 28 x 4-day type, with average daily flow. No dysmenorrhea.

After poliomyelitis: For the first three months, very severe dysmenorrhea, with irregular menstruation (short interval type), 14 x 7 days, with excessive daily blood loss. Following this three months' interval, there was a period of amenorrhea, which has persisted up to the present time.

* * *

CASE 3.—Student nurse, age 20. Onset of poliomyelits, June, 1934. Previous menstrual history: regular, 28 x 5-day type, average daily flow. No dysmenorrhea.

After poliomyelitis: First three months, very severe dysmenorrhea, associated with excessive daily blood loss, although the interval and duration remained the same.

The following three months there was a period of amenorrhea.

Menstruation was reëstablished after three months, but it has been totally irregular, with very severe dysmenorrhea ever since.

COMMENT

We cannot present each history in detail. Let it suffice to say that the average history elicited from this group presented perfectly normal menstruation before the onset of poliomyelitis; but after the disease the typical story is primarily of dysmenorrhea, beginning from two to seven days before menstruation and continuing into the menstrual phase of the cycle for a period of two to seven days. The other irregularities in menstruation have been briefly outlined.

TABLE 10.—*Illustrating Number of Patients With or Without Dysmenorrhea Before the Onset of Poliomyelitis*

52 patients had no dysmenorrhea before poliomyelitis (57 per cent).
40 patients had dysmenorrhea before poliomyelitis (43 per cent).
92

TABLE 11.—*Analysis of Symptoms in Group Without Dysmenorrhea Before Poliomyelitis*

Decrease in flow	24—Dysmenorrhea as the only menstrual symptom. 4—Very severe dysmenorrhea; same interval; marked decrease in daily blood volume. 4—Very severe dysmenorrhea; irregular interval (long) increased days of flow; decreased daily blood volume. 2—Very severe dysmenorrhea; same interval; decreased days of flow; decreased daily blood volume.
Increase in flow	5—Very severe dysmenorrhea; irregular interval (shortened); increased days of flow; profuse daily blood volume. 4—Very severe dysmenorrhea; same interval same number of days of flow; profuse daily blood volume. 3—Very severe dysmenorrhea every third menstrual period. 3—Very severe dysmenorrhea. Totally irregular interval. 3—Case histories to be presented briefly. 52

TABLE 12.—*Severity of Dysmenorrhea Before Poliomyelitis*

21	Mild (52 per cent).
6	Moderately severe.
9	Severe.
4	Very severe.
40	patients complaining of dysmenorrhea prior to poliomyelitis.

There are three patients in this group, still on absolute bed rest, who experience only a few days each month free from pain. The premenstrual dysmenorrhea begins a few days after the postmenstrual pain has stopped. The maximum intensity of pain coincides with the menstrual flow. These patients offer a real problem in therapy. Twenty patients have reported premenstrual dysmenorrhea of ten to fourteen days' duration. We present this series of cases to illustrate the complexity of our problem.

We will now briefly analyze the group of forty patients who have stated that dysmenorrhea was present before the onset of poliomyelitis.

A similar classification, as was previously used to express the severity of dysmenorrhea before poliomyelitis, is expressed in Table 12.

Twenty-one patients of this group described the pain as mild.

Only four of the group described the pain as being very severe.

Referring to Table 13, it illustrates a very important observation, namely, that thirty-seven of the forty patients in this group had either a definite increase in the dysmenorrhea or a recurrence, following a symptom-free interval.

Two patients reported no change in the intensity of the pain following poliomyelitis, but definitely stated that there was a marked change in the character of the dysmenorrhea. Prior to poliomyelitis it had been intermittent and cramp-like. After the disease it was described as very intense and constant. The last case in this series has previously been reported. Dysmenorrhea entirely disappeared after the onset of poliomyelitis.

An analysis of the group of thirty-seven patients reporting an increase in menstrual pain after the onset of poliomyelitis is illustrated in Table 14. Here we note that eight patients had symptom-free intervals of one to seven years prior to the disease. One patient of this group had very severe dysmenorrhea between the ages of fourteen and eighteen, which stopped spontaneously. The remaining seven of this group had dysmenorrhea cured by various types of surgery before the onset of poliomyelitis. The operations enumerated were: dilatation and curettage, ligament suspension of the uterus, resection and removal of the ovaries.

TABLE 13.—*Analysis of Forty Patients—Dysmenorrhea Prior to Poliomyelitis*

37	Definite increase or recurrence of dysmenorrhea.
2	No change in intensity. Definite change in character of the dysmenorrhea.
1	No dysmenorrhea following poliomyelitis (previously reported in this series).
40	

TABLE 14.—*Illustrates the Increase or Recurrence of Dysmenorrhea Following Poliomyelitis*

25	Marked increase in dysmenorrhea after poliomyelitis.
4	Slight but definite increase.
8	No dysmenorrhea immediately preceding poliomyelitis (free interval of one to seven years).
1	Very severe dysmenorrhea—14 to 18 years of age. Stopped spontaneously.
7	Dysmenorrhea cured by surgery.
37	

Twenty-five patients reported a marked increase in pain.

Four patients stated that there was a slight but definite increase.

The four patients who complained of very severe dysmenorrhea before the onset of poliomyelitis present an interesting analysis. They have been previously reported in our series, but it is of especial interest to call attention to the status of pain immediately preceding the disease.

One patient belongs to the group reporting no change in the intensity, but a definite change in the character of the pain. The other three patients did not have dysmenorrhea for at least one year prior to the onset of poliomyelitis.

COMMENT

It is quite apparent from this analysis that the symptom of dysmenorrhea following poliomyelitis is as definite in the group reporting dysmenorrhea before the disease as it is in the series of patients who had not previously experienced painful menstruation. Irregularities in interval, duration, and character of menstrual flow, were also reported in this group of forty patients, but they are similar to the examples previously given. In this series of forty patients, twenty-one reported other menstrual irregularities in addition to dysmenorrhea.

The records presented have, of necessity, been based entirely upon personal histories as given to us by the patients interviewed. Inaccuracies are inevitable. Exaggeration of symptoms must be recognized and, where possible, proper evaluation given them. We have made every effort to do this in compiling our data. It is a well-known observation that any severe or prolonged illness lowers the threshold to pain, resulting in a marked diminution in pain tolerance. These points are especially applicable in our study of this epidemic of poliomyelitis. Many of these patients have spent months on a Bradford frame or in various types of plaster casts. All have been on absolute bed rest during the acute phase of the illness, frequently being required to have a board placed under the mattress. These necessary expedients in treatment have unquestionably contributed in lowering the pain tolerance to dysmenorrhea. Psychoneuroses have been prominent features in this epidemic and, consequently, are important as contributory agents in the production of dysmenorrhea. We are well

aware that normal, healthy activity, is one of the essential conditions prerequisite to successful treatment of menstrual dysfunctions, particularly dysmenorrhea.

However, since we have noted that this symptom has continued into the convalescent periods, and is still a major problem after these patients have returned to duty, we cannot help but feel that this particular epidemic of atypical poliomyelitis must be recognized as the etiologic factor in producing the various types of abnormal menstruation encountered. We realize that, from the gynecologic standpoint, we are dealing with a complex problem.

The atypical menstrual histories presented have almost run the complete gamut of the so-called functional types of abnormal menstruation. We have seen a predominance of the one symptom, dysmenorrhea. It has occurred as a new symptom in a previously normal menstrual history and as a markedly exaggerated manifestation of previously existing dysmenorrhea. We have seen excessive menstrual flow become scant or entirely absent following poliomyelitis. In one instance we have seen abnormal menstruation become perfectly normal after the onset of the disease.

We do not presume to make definite statements in regard to the *modus operandi* of this disease process, as it apparently affects menstruation. It will require infinitely more time and more accurate data to properly evaluate these findings. Our observations have been made after a comparatively brief study. It does seem logical, however, to assume that all of the menstrual irregularities encountered can be explained on the basis of endocrine gland dysfunction. In the study of these patients, we have seen ample evidence of thyroid gland involvement, as demonstrated by the high incidence of lowered basal metabolic rates following poliomyelitis. We have seen definite pituitary gland involvement, as evidenced by the sudden appearance of abnormal hair distribution, simulating the male type. This was seen in two instances following the disease in perfectly normal patients. There had never been any indication of abnormalities of this gland prior to poliomyelitis. The overwhelming evidence of ovarian dysfunction is illustrated in the multiplicity of abnormal menstrual reactions.

The very bizarre nature of the menstrual changes following poliomyelitis leads one to logically explain them entirely on an endocrinologic basis. Each patient presents an individual story, probably depending upon the gland or group of glands primarily involved in the process. We can do no more than speculate on the exact process by which these changes are brought about. It is possible that the disease process itself, in some manner, directly acts on these glands. This statement would seem to be substantiated by the findings of one group of workers, who have noted marked cystic degeneration of the ovaries. This observation was made during ten laparotomies which they performed on postpoliomyelitis patients. Whether this will prove to be a consistent finding remains to be seen. It cannot be given credence on the basis of ten observations. The long period of premenstrual dysmenorrhea, as seen in twenty-three patients in this series, would tend to corroborate the statement that ovarian dysfunction is an important factor in producing painful menstruation. In this group the long premenstrual phase of the dysmenorrhea coincides with the ovulation stage in the ovarian cycle.

These changes might also have been produced as a result of an indirect action on the endocrine glands through the sympathetic and parasympathetic nervous systems. The exact nature of this process is as yet not clearly understood. We have previously noted the apparent involvement of the sympathetics and parasympathetics in producing the atypical types of paralyses exhibited in the acute stages of this disease. We can do no more than theorize until more accurate data and knowledge are available.

TREATMENT

Our discussion of treatment must, of necessity, be brief and inconclusive. Interest has been concentrated primarily on the treatment of the poliomyelitis, as it rightfully should be. The complications and sequelae have not been thoroughly investigated, and treatment has been inadequate in many instances. This statement is in no way to be construed as a criticism of the men who have done such creditable work in the care of these patients. In brief, it can be stated that treatment of the gynecologic symptoms, particularly of dysmenorrhea, has not been outstandingly successful. A few patients have recovered without any specific medication. A few have responded very satisfactorily to the standard glandular preparations used. Response to treatment in the great majority, however, has been rather discouraging.

Apparently, the majority of these patients fall into the group of the so-called primary type of dysmenorrhea, since gross pelvic pathology has been conspicuously absent. The treatment would then logically follow the general principles as outlined by McNeile, Pettit, and Emge, in a recent symposium on dysmenorrhea, published in the February, 1936, issue of California and Western Medicine. This would include the appropriate use of glandular products, plus the establishment of a normally active regimen of daily habits. Proper diet, exercise, and rest should be included, as well as attention to the specific problem presented. Surgery should be resorted to only in the event that definite evidence of pathology is established. The great variety in types of abnormal menstruation indicates that, for successful therapy, each patient must be individualized and treated accordingly. They do not follow any set pattern for which a general panacea can be used. This fact alone probably accounts for the discouraging responses to treatment to date. It is hoped that in the near future we may be able to present accurate information regarding the specific treatment of these patients, the products used and the responses to them.

We present this brief survey, not as a statistical report, but as an introduction to a problem which

we feel must be carried on to its logical conclusion, namely, to return these patients to their various occupations healthy and symptom-free.

CONCLUSIONS

In closing, permit us to again state that, as a result of our survey, we are convinced of the following facts:

1. The Los Angeles epidemic in 1934 and 1935 of so-called acute anterior poliomyelitis presents an entirely atypical picture of the disease.

2. It resembles a combination of poliomyelitis and encephalitis, with a preponderance of neurogenic and psychogenic symptoms. Convalescence has been slow, and patients have frequently been left with marked emotional instability.

3. There is justifiable evidence to establish a definite involvement of the sympathetic and parasympathetic nervous systems.

4. The survey has conclusively demonstrated that the disease has produced a large variety of menstrual irregularities.

5. Dysmenorrhea has been the most prominent gynecologic complaint, and has been present in 85 per cent of the case histories analyzed.

6. The dysmenorrheas are apparently of the primary type, based on dysfunction of the endocrine glands. Psychoneuroses are important as probable etiologic factors in producing the symptom of dysmenorrhea.

7. Treatment of the gynecologic problem has not been entirely satisfactory to date. It has been inadequate for the most part, largely due to the lack of individualization of the case histories as presented. These records must be more carefully studied in order to properly outline the course of treatment indicated in each instance.

8. We feel that we are dealing with a very important problem, both medically and economically, and present this survey in the form of a preliminary report in the hope that it may be of use in the future observations of poliomyelitis and its sequelae.

916 Pacific Mutual Building.

DISCUSSION

Donald G. Tollefson, M. D. (511 South Bonnie Brae, Los Angeles).—The discussion that Dr. Dwight Young presents is an entirely new phase of the complications following acute anterior poliomyelitis.

With an atypical epidemic, such as occurred in Los Angeles in 1934-1935, it might be justified to consider the symptoms as due to involvement of the sympathetic and parasympathetic nervous systems. It must also be remembered that patients who are ill for a long period of time develop certain psychoneurotic tendencies which must be considered in discussing etiology. Surgery of the sympathetic system for certain types of dysmenorrhea has been practiced quite extensively during the past few years, and if we are dealing with a disease or involvement of this system, probably the operation will be of great benefit in these cases.

❦

Margaret Schulze, M. D. (University of California Hospital, San Francisco).—The dysmenorrhea which Doctor Young describes following poliomyelitis is certainly an unusual sequel, and I have had no personal experience with this type of case. In an endeavor to determine whether such cases had occurred in the bay region, Dr. Frances Baker has kindly questioned for me the patients with poliomyelitis sequelae now receiving treatment in the orthopedic department of the University of California clinic. Of twenty-five such patients, many with severe residual paralyses, replies were obtained from eighteen, none of whom had severe dysmenorrhea, although three complained of mild and one of occasional moderate discomfort. In addition, through the courtesy of Dr. Ruby Cunningham, Dr. Lois Brock has reviewed the histories of 1,200 freshmen women at the University of California. Sixteen gave a history of poliomyelitis and of these, three stated that they had severe pain at the onset of the period. None of these three had had their poliomyelitis in the 1934 or 1935 epidemics, and this incidence of dysmenorrhea is not greater than that in the group as a whole.

The etiologic factors are difficult to evaluate, and one cannot escape the conclusion that the psychogenic element may be very important. However, with the definite evidence of endocrine disturbance in many of these women, further studies from this standpoint should be interesting, particularly hormonal studies and endometrial biopsies. In view of the very severely disabling character of the symptoms and the evidences of involvement of the sympathetic nervous system, some of these patients might come up for consideration of presacral sympathectomy should they fail to respond to the therapy which Doctor Young has outlined. It will be interesting, therefore, to hear of his further studies on these patients.

❦

L. A. Emge, M. D. (2000 Van Ness Avenue, San Francisco).—Doctor Young's survey is of considerable historical and clinical interest. I am not equipped to discuss the Los Angeles epidemic relative to its relation to orthodox poliomyelitis. It is sufficient that we recognize it as a wasting disease which influences the nervous system and leaves demonstrable motor damage. It is well known that most wasting diseases influence menstruation, usually producing either a menstrual depression or painful menstruation. Nothing is known about the mechanism of this disturbance. The type of dysmenorrhea which follows wasting disease is very similar to that which occurs in asthenic, undernourished, and anemic individuals. It frequently disappears without treatment after a normal metabolic balance has been established. In the particular group that Doctor Young has so ably discussed, one would be tempted to interpret the pain production on the basis of an upset in the sympathetic nervous system. However, it is extremely difficult and involved to build up a theory of the localization of nerve damage. Experimentally, it has been demonstrated that wasting disease can produce a degeneration of the ganglia of the sympathetic plexus of the pelvis, and that this degeneration can be arrested and probably improved by the administration of estrogenic hormones. It also has been demonstrated that the withdrawal of this group of hormones leads to an atrophy of the sympathetic ganglia. One might, therefore, theorize that the actual damage to the nervous system in the disease under discussion may in reality occur in the sympathetic pelvic innervation as a part of a general nerve disturbance occurring in poliomyelitis. I am rather skeptical about the evaluation of the severity of pain in dysmenorrhea as the result of a group study. Long experience has taught me that no two patients ever evaluate pain alike. I base my own standard on the ability of the patient to remain ambulatory during menstruation. If the patient has to take to her bed, menstruation becomes a serious hindrance to her physical and functional happiness. All other attempts at grading menstrual pain are subject to so many controversial points that it is better not to attempt to use them for statisical purposes. What interests me particularly in Doctor Young's paper is that nearly half of his patients had some form of dysmenorrhea prior to falling ill, and that some of these who had been free from this disturbance for some periods just preceding their illness suffered a recurrence. It would be interesting to learn if the period of freedom occurred during a period of particularly good physical health. It would prove the point that disturbed health and dysmenorrhea go hand in hand. Doctor Young's comment that dysmenorrhea occurring in connection with poliomyelitis may be due entirely to an endocrinologic disturbance is a rather dangerous deduction for which he can present no proof. What his study proves is that poliomyelitis, like other wasting diseases, is frequently followed by dysmenorrhea.

CERVICAL REPAIR IMMEDIATELY FOLLOWING CHILDBIRTH*

By Abraham Bernstein, M.D.
San Francisco

Discussion *by H. A. Stephenson, M.D., San Francisco; Alice F. Maxwell, M.D., San Francisco; E. M. Lazard, M.D., Los Angeles.*

THE safety of labor in a properly managed maternity, with a staff of adequate experience and skill, has of late years become so great that the mortality approaches the vanishing point.

Proper prenatal care has aided in greatly diminishing the toll taken by toxemia. Hospital asepsis has done away with puerperal septicemia, and the well-trained obstetrician conducts his case in such a manner that hemorrhage does not occur, and if it does occur, the necessary measures are immediately instituted. The results, so far as mortality is concerned, are exceedingly gratifying.

Now, although we have brought our mortality rate down, we are still lacking in the attention given to some of the common lesions caused by labor.

OBJECT OF THIS PAPER

The object of this paper is not to present anything new, but to revive an old discussion as to the advisability of repairing a torn cervix while suturing a lacerated perineum following childbirth. It is the aim of every obstetrician to give the pregnant woman the best prenatal care, and to leave her in good physical condition after childbirth; but he does not accomplish this if the healing of a torn cervix is left to nature. Active bleeding from the cervical artery of the uterus is practically the only condition which most practitioners consider the indication for immediate repair of cervix. Even then many resort to tightly packing the vagina with gauze, in the hope of controlling the hemorrhage. We consider the chances of infection are much greater when this is done than when a bleeding artery is sutured or ligated. Today the danger of infection has been greatly minimized owing to the fact that obstetrics is considered major surgery, and the patients are given the same attention and preparation that other major surgical cases receive.

In the absence of an alarming hemorrhage from a lacerated cervix, the attending physician generally ignores the cervical condition, and proceeds with the repair of the perineum regardless of whether it is a first, second, or third degree tear. This, however, is contrary to modern surgical procedure. It is, indeed, very poor and incomplete surgery to correct one pathologic condition and neglect another adjacent to it.

If there is infection present or suspected, or if the cervix is too edematous or macerated to warrant immediate repair, it is best to swab raw surfaces with two per cent iodin solution or tincture of merthiolate, and then wait a few days. If the patient's temperature remains normal, and no signs of infection appear, the cervix and perineum may then be repaired.

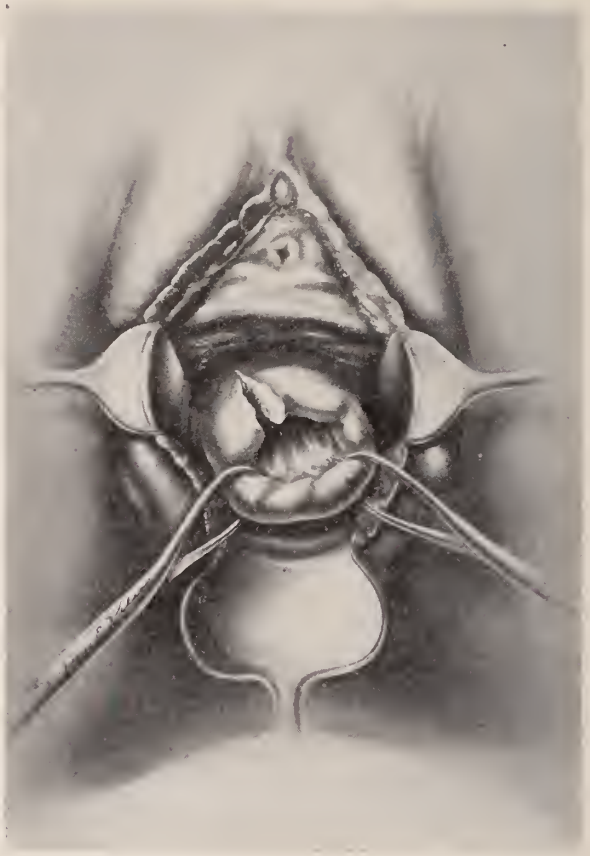

Fig. 1.—Lacerations of cervix.

The cervix is torn in almost every labor, but the amount of damage varies from a slight nick to deep lacerations into the vaginal fornices. The tears may be multiple, unilateral, bilateral, stellate, anterior, posterior, or anular.[1,3]

The most common causes of the damage to the cervix and the surrounding tissues are precipitate labor, premature rupture of membranes, a rigid cervix, injudicious use of pituitrin, using forceps, or extracting the head coming after, before complete dilation of cervix, rapid manual or instrumental dilation and incarceration of anterior lip of the cervix between the pelvis and the presenting part of the fetus.[2] Usually the cervical laceration, if small, will heal of itself. In view of this we make it a practice not to repair the cervix if laceration is less than three-fourths of an inch in length and if there is no bleeding. Lacerations which are more extensive are immediately repaired. (Fig. 1.) If this is not done, the circular

Table 1.—*Total Number of Cases and Parity*

Year	Total Number of Cases	Primipara	Multipara
1930	190	84	106
1931	121	69	52
1932	104	60	44
1933	95	61	34

* From the Department of Obstetrics and Gynecology, University of California Medical School.

Read before the San Francisco County Medical Society, Section on Surgery, August 18, 1936.

TABLE 2.—*Types of Delivery*

Number of Cases	Spontaneous	Breech	Forceps	Cesarean Section
190	139	3	47	1
121	75	6	35	5
104	67	4	23	10
95	41	4	37	13

muscle fibers of the cervix retract, and the raw surfaces will then granulate over and become covered with squamous or columnar epithelium, leaving a very much eroded, scarred cervix; also this type of cervix in later years may be the forbear of an epithelioma. Because of this we may get such pathologic conditions as cervical and uterine hyperplasia, and engorgement resulting in displacement

TABLE 3.—*Cervical Repairs*

Year	Spontaneous Deliveries	Forceps	Breech
1930	40	41	1
1931	25	36	3
1932	23	18	3
1933	18	31	2

of the uterus, chronic parametritis, and other low-grade pelvic infections. These give rise to backache, headache, constipation, nervousness, leukorrhea, metrorrhagia, and dysmenorrhea.[2,4]

AUTHOR'S STATISTICS

During the past four years, we have sutured the torn cervix before repairing the lacerated peri-

TABLE 4.—*Induction of Labor*

Year	Total Cases	Premature Rupture of Membrane	Pituitrin Used to Induce Labor
1930	190	15	26
1931	121	10	17
1932	104	12	16
1933	95	6	8

Note: No cervical repairs in above cases.

neum, and thus far we have had no reason to regret this procedure, as our results have been uniformly satisfactory and successful.

Tables 1 to 8 show the different types of cases we had and the number of cervical repairs.

From the tables presented it will be seen that we do not get 100 per cent results, but because of that it does not seem a valid reason for not

TABLE 5.—*Total Cervical Repairs*

Year	Total Cases	Total Cervical Repairs
1930	190	82
1931	121	64
1932	104	44
1933	95	51

TABLE 6.—*Morbidity With Cervical Repair*

Year	Total Cervical Repairs	Highest Temperature	Highest Pulse
1930	82	37.3	108
1931	64	37.2	106
1932	44	37.3	108
1933	51	37.4	104

Note: Above taken first twenty-four hours, following which temperature and pulse dropped to normal.

preventing as much pathology as we can. Ectropin and erosion, if not too extensive, may be greatly improved by the use of a small electric cautery or 20 per cent silver nitrate.

COMMENT

From these tables it is readily seen that spontaneous deliveries give us lacerations of the cervix as well as operative interferences. One expects to find lacerations of the cervix following operative interferences. However, our inspection and careful observation of these cases show that all

TABLE 7.—*Morbidity Without Cervical Repair*

Year	No Cervical Repairs	Highest Temperature	Highest Pulse
1930	108	37.4	110
1931	57	37.2	106
1932	60	37.3	108
1933	44	37.2	106

Above: First twenty-four hours following delivery.

cervices should be examined following delivery. This should be done whether there is an excess amount of bleeding or not. Naturally, if the patient is bleeding, one examines the perineum first and then looks to the cervix for possible trouble.

From Table 4 we get the number of cases with premature rupture of membranes and the cases induced with pituitrin. However, although everyone agrees that the above factors aid in lacerating a cervix, in our small series we had no lacerations resulting from either factor.*

AUTHOR'S PROCEDURE

Our procedure is as follows: Under anesthesia, the patient is placed in the exaggerated lithotomy position, an assistant holds each leg and flexes the thighs on the abdomen. Under direct light,

* See Figures 1 and 2 of lacerated cervix, and repair.

TABLE 8.—*Follow Up Eight Weeks After Delivery*

Year	Total Cervical Repairs	Cervix Well Closed	Ectropin and Erosion of Cervix
1930	82	71	11
1931	64	58	6
1932	44	37	7
1933	51	42	9

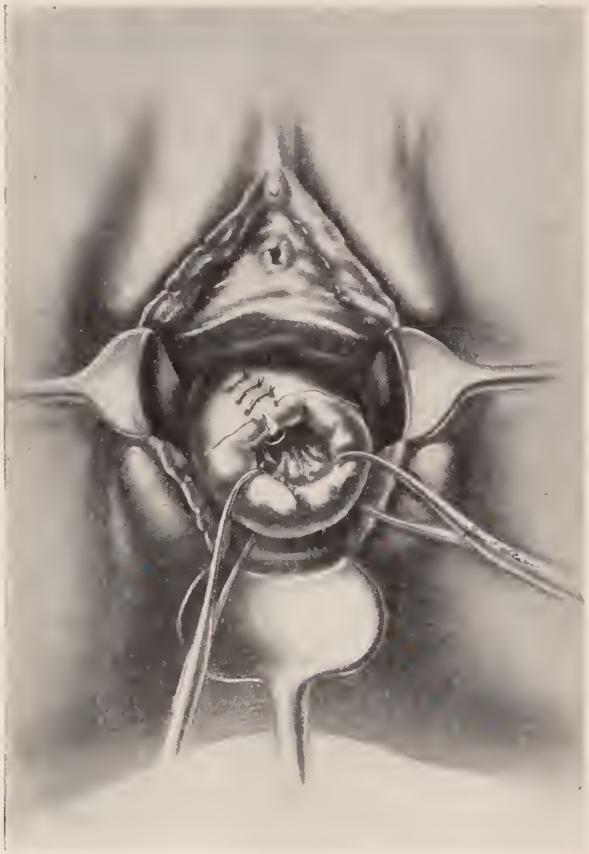

Fig. 2.—Method of repair of lacerations of cervix.

lateral retractors are inserted and the cervix is grasped with a sponge stick and brought into field of operation. (See Fig. 2.) It is easier to inspect and grasp the torn cervix before the expulsion of the placenta, for after the delivery of the placenta the uterus is massaged until it is firmly contracted and the uterine hemorrhage has ceased. The patient is then given one cubic centimeter of pituitrin hypodermically. After careful cleansing of the vagina, the lateral retractors are reinserted and the cervix again pulled down and examined. Sponge sticks are readjusted and the cervix pulled in the direction opposite to the laceration. Good exposure is obtained and the tear is repaired with interrupted No. 2 chromic sutures. Enough sutures are used to insure complete hemostasis and good coaptation. The knots of the sutures should not be tied too tight because allowance must be made for shrinkage of the cervical tissues, and care must also be taken to insure good drainage and to leave the cervical canal patulous. All cervical lacerations are treated in the same way. No vaginal drains or packing are used, unless there is danger of an adhesion forming between the cervix and the lateral wall. The drain is left in for twelve hours. The perineum is then inspected and repaired if necessary.

IN CONCLUSION

1. All cervices should be inspected following delivery.

2. If cervical lacerations present over one inch long, they should be repaired.

3. Cervical lacerations occur with normal spontaneous deliveries as well as operative cases.

4. Cervical repairs lessen the danger of pathologic lesions occurring later in life.

5. No repairs should be done in the presence of infection.

350 Post Street.

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DISCUSSION

H. A. Stephenson, M. D. (490 Post Street, San Francisco).—The author has shown two things very clearly: The high percentage of torn cervices following delivery, and the comparative safety of inspection and repair of such cervices when done according to the author's technique.

Regarding the first, the incidence is very surprising. In spontaneous deliveries one cervix in every three required repair. It is very difficult to explain his high percentage on the basis of the causes of lacerated cervix, as set forth in the paper. Even more surprising is the fact that only 11 per cent of the forceps cases were without laceration. Accepting the figures given by the author, it would seem to make almost imperative the inspection of every cervix immediately following delivery. This has not been the practice of most obstetricians, as the cervices examined at postpartum examination some weeks after delivery are mostly not lacerated to a degree which would be considered as grossly pathological. Microscopical pathology is undoubtedly present to some degree in both the repaired and the unrepaired groups. Lack of facilities and assistants also makes difficult such routine examination. Many patients are still delivered in surroundings in which good asepsis cannot be rigidly observed. This is deplorable, but nevertheless a fact.

The success attained by Doctor Bernstein in this series should be a stimulus to all physicians to immediately repair cervical lacerations following delivery when they have at hand facilities which permit such repairs to be done without subjecting the patient to undue risk of infection.

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Alice F. Maxwell, M. D. (University of California Hospital, San Francisco).—It has long been an accepted dictum that the standards of adequate obstetrical care are met by the maintenance of the woman's health and the prevention of complications during pregnancy, labor, and the puerperium; by the delivery of a healthy child; and by the restoration of the pelvic tissues to their normal nonpregnant condition. This report is limited to a discussion of the correction of cervical damage which may occur in spontaneous delivery, and which inevitably develops after trauma incidental to operative procedures, or the institution of procedures during labor for the purpose of hastening cervical dilatation. The author is to be congratulated on the satisfactory end-results obtained by postpartum repair of cervical lacerations in a group of private patients with a well-controlled surgical technique.

It is obvious that cervical tears which are causing postpartum hemorrhage demand immediate suture; however, the advisability of the routine inspection of the cervix following labor, in the absence of hemorrhage or factors which may contribute to cervical trauma, has not been universally accepted. The ever-present threat of introducing uterine infection must be balanced against the advantages of visual inspection of the cervix. The author's results justify the conclusion that with adequate exposure of the postpartum birth tract, and a rigid surgical technique, the prompt repair of cervical tears does not increase the incidence of puerperal infection. Our interest in cervical lacerations is focussed not only on their bearing on puerperal morbidity, but on the more remote effect of such tissue injury to the subsequent development of

carcinoma. The architecture of the cervical canal is such that drainage of the complex glands is not complete in the presence of the trauma of even physiologic dilatation, gland stasis favors the introduction, propagation and spread of organisms, and serves as a nidus of long-continued irritation with resultant permanent tissue alterations. It must be emphasized that this condition may prevail in the cervical canal in the absence of tearing of the cervical tissues apparent to inspection. Postnatal follow-up examinations only will reveal the extent of the tissue changes and determine the methods to be instituted to eliminate infection. It is not the laceration *per se*, but the associated infection which is the important predisposing factor in the development of carcinoma. The elimination of infection by the repair of lacerations, the removal of infected tissues of the canal by surgical or coagulation methods, are forward steps in the prevention of cervical cancer.

E. M. Lazard, M. D. (1930 Wilshire Boulevard, Los Angeles).—I have read Doctor Bernstein's paper with great interest, as I have not made it a practice to do immediate cervical repairs, except for deep lacerations which cause hemorrhage which has to be controlled. For such cases I never depend on packing, but always control with sutures. If the nature of the delivery is such that deep lacerations are present, I prefer to wait for from five to seven days, when swelling and edema from the trauma of delivery have subsided and involution has begun. I have felt that better plastic results could be obtained than by the immediate repair. In the average case of normal delivery, the six-week postpartum examination usually reveals very little laceration or erosion, and what there is can be well cared for by linear cauterization. Of course, where there has been a difficult version or forceps delivery, deep lacerations are comparatively frequent. With Doctor Bernstein, I believe that routine inspection of the cervix after delivery should be done, and in view of his favorable results, I feel that immediate repair of deep lacerations should be done, provided the patient is in a hospital where the proper aseptic technique can be obtained.

MENORRHAGIA: THE RESULTS OF RADIUM TREATMENT—A FOLLOW-UP STUDY*

By Margaret Schulze, M.D.
San Francisco

Discussion *by Edward N. Ewer, M. D., Oakland; J. Morris Slemons, M. D., Los Angeles; Erle Henriksen, M. D., Los Angeles; C. Frederic Fluhmann, M. D., San Francisco.*

THE treatment of menorrhagia has always been a difficult problem in gynecologic therapy. With the development of the use of radium in gynecology, it was hoped for a time that this problem had been solved. It was soon found, however, that although in many cases the results were brilliant, in others the treatment was unsuccessful, or there were undesirable sequelae.

CLINICAL MATERIAL

It was with the hope of establishing definitely the limitations of this therapy, as well as determining the most desirable dosage to effect certain results, that this study was undertaken. It constitutes a follow-up upon the results of radium therapy in 204 women observed over a period of at least two years, and up to twenty years. Follow-up notes made upon succeeding clinic visits were utilized in all cases. In addition, a questionnaire covering the main points of information we wished to obtain was sent to all patients, and if there was any indication of dissatisfaction with the results of treatment from the questionnaire, the patient was requested to return for reëxamination and an interview, to determine the exact nature of her difficulties.

Only cases of so-called functional menorrhagia—that is, those in which there were no determinable gross pathologic lesions, are included in this study. The women ranged in age from fourteen to sixty years. Only one woman was over fifty-three years; but as she had menstruated without interruption, although irregularly, up to sixty years of age, it was felt that she belonged in the group. There were six young girls in the adolescent group under twenty years of age, 136 women in the adult group from twenty to forty-five years, and sixty-two women in the menopausal group of forty-five years and over.

Table 1.—*Incidence by Ages in 204 Patients*

Age	Number
14–20	6
20–45	136
45–60	62

For certain purposes of study, the adult group has been further subdivided into a young adult group of forty-five cases from twenty to thirty-five years, and a premenopausal group of ninety-one cases from thirty-five years up to forty-five years.

The duration of symptoms is indicated in Table 2.

Table 2.—*Duration of Symptoms*

	Adolescent Group	Adult Group	Menopause Group
One month or less	0	7	6
One month to one year	1	38	26
One to five years	4	58	20
Five to twenty years	1	33	10

The type of periods is indicated in Table 3.

Table 3.—*Type by Periods*

	Regular	Irregular	Continuous
Adolescent	0	0	6
Adult	27	69	40
Menopausal	3	40	19

By continuous bleeding is meant a duration of at least one month. Four of the patients had bled constantly for a period of from one to three years.

* From the Department of Obstetrics and Gynecology, University of California Medical School.

Read before the Obstetrics and Gynecology Section of the California Medical Association at the sixty-fifth annual session, Coronado, May 25-28, 1936.

Physical evidence of dyscrasia of the glands of internal secretion was relatively rare in this series, and is indicated in Table 4.

TABLE 4.—*Gland Dyscrasia*

	Obesity		Hirsutism	Skin Change
	Mod.	Ext.		
Adolescent	1	0	0	0
Adult	18	6	5	3
Menopausal	15	2	1	0

Adults—Breast atrophy 10, goiters 4, diabetes 1, dwarfism 1.

The basal metabolism has been taken as a routine only relatively recently, with the results that are shown in Table 5.

TABLE 5.—*Basal Metabolism*

	Normal	Over Plus 10	Below Minus 10
Adolescent	1	1	1
Adult	15	2	10
Menopausal	1	1	1

The marital status of the patients is indicated in Table 6.

TABLE 6.—*Marital Status*

	M.	S.	W.
Adolescent	0	6	0
Adult	110	18	8
Menopausal	56	0	6

The number of women who had pregnancies before and after radiation is indicated in Table 7.

TABLE 7.—*Pregnancies*

	Pregnancies Before Radiation	Pregnancies After Radiation
Adolescent	0	0
Adult	100	7
Menopausal	60	0

Only four of the women who had pregnancies after radiation went to term. Two had spontaneous and one an induced abortion. These cases will be discussed in more detail later.

Many of the patients had been unsuccessfully treated elsewhere before coming to us. Previous treatment is indicated in Table 8.

TABLE 8.—*Previous Treatment*

	Medical	Glandular	Surgical	Radiation
Adolescent	1	1	6	1
Adult	6	2	15	1
Menopausal	..	1	2	..

Surgical treatment consisted of dilatation and curettage in all except two of the adult cases where the patients had uterine suspensions, in addition to dilatation and curettage. Four cases had been curetted three times, and one patient four or five times before we saw her. A number had had gynecologic surgery for other conditions before the onset of their menorrhagia. This surgery is not included in the tabulation.

The results of the initial treatment with radium are given in Table 9.

TABLE 9.—*Results of Initial Treatment*

	Insufficient	Satisfactory	Overtreated
Adolescent	6	0	0
Young adult	21	18	6
Premenopausal	23	59	9
Menopausal	1	57	4

Overtreatment is rather difficult to define accurately, and its conception varies considerably with the age of the patient. In general, we have considered amenorrhea, or very infrequent and scanty periods, as evidence of overtreatment in the adolescent group and in the young adults under the age of thirty-five; whereas in women over this age it was not so considered, unless the patient herself made complaint, whether as the result of atrophic, vaginal changes, psychic changes, or severe menopausal symptoms.

The type of further treatment is given in Table 10.

TABLE 10.—*Further Treatment for Menorrhagia*

	Radium	X-ray	Surgery	Endocrin	Medical
Adolescent	3	1	2	3	2
Young adult	11	0	5	7	4
Premenopausal	5	7	5	3	1
Menopausal	0	1	0	0	0

Since certain patients received more than one type of further treatment, and one or two had no further treatment, although their menorrhagia was not controlled by the initial one, Table 10 is not exactly comparable with Table 9.

Most of the surgical treatment was done elsewhere on patients who had moved to distant locali-

ties, or who were so dissatisfied with our results that they did not return to us. Of the adolescents, one had three further curettages, and later x-ray and radium. Another had much endocrine treatment, and then a curettage and a presacral sympathectomy for pelvic pain. Of the young adults, four had hysterectomies, all done elsewhere, and one had a large cervical polyp removed by us. Two of the hysterectomies followed repeated radiation. Of the premenopausal women, four under forty had hysterectomies, one after repeated radiation. Three were done elsewhere, and one was done by us because of the development of multiple fibroids and an ovarian cyst. One woman in the forty to forty-five group had a later curettage. Later pelvic surgery for other reasons than menorrhagia was done in six cases.

The final result of all treatments is given in Table 11.

TABLE 11.—*Final Result—All Treatments*

	Insufficient	Satisfactory	Overtreated
Adolescent	0	2	4
Young Adult	3	27	15
Premenopausal	3	78	10
Menopausal	0	58	4

The criteria for overtreatment are the same as in Table 9. Hysterectomies in women under thirty-five are considered overtreatment, those in women over thirty-five were not so classified when the patient was satisfied.

The incidence of menopausal symptoms is given in Table 12.

TABLE 12.—*Incidence of Menopausal Symptoms*

	Mild	Severe	None
Adolescent	0	0	6
Adult	29	23	84
Menopausal	14	8	40

Contrary to the generally accepted opinion, severe menopausal symptoms after radiation were relatively infrequent.

The weight changes after radiation are given in Table 13.

TABLE 13.—*Weight Changes After Radiation*

	Gain	Loss	Unchanged
Adolescent	4	2	0
Adult	73	16	35
Menopausal	25	7	12

In sixty-eight women the gain in weight was moderate, below 20 pounds. Thirty-four women showed marked gain in weight, from 20 to 75 pounds. The greatest weight loss was 40 pounds, and a large number of the women who lost weight stated that they did so by dieting.

Changes in sexual function and atrophic changes which might lead to these are noted in Table 14.

TABLE 14.—*Atrophic and Psychic Changes*

	Frigidity	Dyspareunia	Vaginal Atrophy
Adolescent	1	0	0
Adult	7	9	22
Menopausal	2	2	9

It is probable that the changes indicated in Table 14 are more frequent than are indicated by the table, since this information was not requested in the questionnaire, but was volunteered by the patients in a number of cases, with very bitter complaints over the marital difficulties which arose. Later inquiry of a number of patients who were dissatisfied with the results of their treatment, but were very vague in stating why, showed that their dissatisfaction was of this nature. Vaginal atrophy was undoubtedly far more frequent than noted here, but so taken for granted after the artificial menopause that special note was not made of it.

TUMOR GROWTH

Since functional menorrhagia is now generally considered due to disturbed endocrine function, and since some of the more recent theories of tumor etiology relate tumors to disturbed endocrine function also, it was very interesting to see how many of our cases on later examination had developed tumors. Uterine fibromyomata were found by us on later examination in four cases; in one case in two years, in two cases in three years, and in one case thirteen years after the original treatment. In one of the three-year cases it was symptomless, in the other three cases menorrhagia recurred. In a fifth case, menorrhagia recurred four months after our radium treatment, and the "uterus and a tumor" were removed by another physician seven months later. In two cases ovarian cysts later developed—in one case complicating one of the fibromyomata mentioned above; in another without recurrence of the menorrhagia. Three cases later developed cervical polpi. Two women later developed carcinoma of the breast. Both were unmarried and had never been pregnant.

Three women developed diabetes during the course of the follow-up observation.

PREGNANCY

Since pregnancy followed radiation so rarely in this group, the cases that became pregnant later merit special mention. There were seven, all in the young adult group, from twenty to thirty-four years of age inclusive. None of the adolescents

became pregnant, either before or after radiation. None of the older women became pregnant after radiation, although the majority had been pregnant before. Of the seven who became pregnant after radiation, two had had no previous pregnancies, one single and one married woman. Only two of the group showed a typically hyperplastic endometrium; in one case the hyperplasia was mild but in the other, extreme. Three others showed premenstrual congestion. In one the tissue was lost, and one showed an edematous and hemorrhagic endometrium with interval type glands. Of the pregnancies, two aborted spontaneously; one was an induced abortion. One woman had a stillborn child at term, the cause unknown. One woman had three children, one normal full-term, one normal premature, and one full-term hydrocephalic, her second child. One woman had one normal, another three normal children. The radium dosage varied from 258 to 609 mc. hours in all except one case; the one with the vary marked hyperplasia, who had 952 mc. hours and a left salpingo-oöphorectomy, and had three pregnancies with the one hydrocephalic later.

DOSAGE

Attempts to work out a satisfactory dosage from our results proved most baffling. Individual variations in response to treatment were so great that the result in any given case was entirely unpredictable. Thus, amenorrhea was produced in a woman of forty-one by 400 mc. hours, and in a woman of thirty-four by 461 mc. hours, and in eight women of thirty-nine or over by doses between 500 and 600 mc. hours. On the other hand, a woman of thirty-five continued to hemorrhage profusely after two treatments, the first of 1,024 mc. hours and the second a year later of 1,594 mc. hours, and finally had a hysterectomy elsewhere. A woman of forty-five had regular and normal periods restored after 1,525 mc. hours, following an initial four months' amenorrhea. Numerous similar, although not quite so striking variations occurred. Attempts to correlate these variations with various factors were quite unsuccessful, whether radium element was used, as in the earlier cases, or radon, as in the later ones, the type of screening, the position of the uterus, with the thought that possibly treatment in a retroposed uterus with prolapsed ovaries might result in amenorrhea with smaller doses. Age appeared to be the one important factor, since women over thirty-five were very likely to have amenorrhea, or very scanty and infrequent periods after doses which did not usually produce this result in younger women. Thus, of twenty women of thirty-five years of age and over receiving only the small dose of between 500 and 600 mc. hours of radium, only six continued to bleed profusely, one had normal periods, four had scanty or infrequent periods, one was "cured" without giving details, and eight were amenorrheic either immediately or after a few scanty periods. With higher doses, the proportion of amenorrhea was even greater; thus, of one hundred women of thirty-five and over receiving over 800 mc. hours, seventy-eight were amenorrheic, while only eight continued to bleed profusely. Five were restored to normal periods, the remainder had scant or irregular ones. Singularly enough, two of the women who continued with profuse bleeding had, respectively, 1189 and 1488 mc. hours, while one who continued with normal periods had 1525 mc. hours.

On the other hand, in the fifty-one young women under thirty-five, amenorrhea was produced by one dose of radium in only three cases, although four more were amenorrheic after repeated radiation. However, the unpredictability of the radium reaction in an individual case is strikingly illustrated by the fact that in one case, aet. thirty-four years, amenorrhea with marked menopausal symptoms was produced by 461 mc. hours. The other two young women had large doses, 1124 mc. hours and 1206 mc. hours, respectively, and were the only two of the young group who received 1000 mc. hours.

RESTORATION OF NORMAL PERIODS

Restoration of normal periods resulted in thirteen of the young women with a single dose of radium varying from 125 to 922 mc. hours, and in five additional women after repeated radiation; that is 35 per cent of the women under thirty-five were restored to normal periods after one or more treatments. The prognosis was best in the 25 to 29-year-old group, of whom 57 per cent became normal, whereas of the adolescent only one, or 16 per cent became normal; of the 153 women of thirty-five or over, only ten, or slightly less than 7 per cent, became normal. Strangely enough, six of these were in the sixty-two women of forty-five years and over.

Repeated treatment with radium was employed in eighteen cases, three adolescents, ten young adults and five premenopausal women. One of the adolescents became amenorrheic, a second had scanty and infrequent periods, the third continued bleeding, had three curettages later and then x-ray treatment, after which she also had amenorrhea.

Five of the young adults were restored to regular and normal periods, one became amenorrheic, one had irregular periods. Two continued bleeding and had hysterectomies. One of the premenopausal women continued bleeding and had a hysterectomy, four became amenorrheic, one after having about three periods at yearly intervals.

CONCLUSIONS

Radium is not an entirely satisfactory treatment of menorrhagia. In the majority of cases the menorrhagia can be controlled, but normal periods are rarely restored, in only 35 per cent of the women under thirty-five, and in 7 per cent over this age. In the adolescent group of six, only one was restored to normal by radium. Only 13 per cent of the young women, and none over thirty-five, became pregnant after radiation. Marital difficulties, which were the result of atrophic changes, were not infrequently a source of considerable complaint. Satisfactory dosage is difficult to establish since although, in general, the results are fairly uniform, the individual variation in response to a given dose is so great that the result is entirely unpredictable. Amenorrhea has

resulted from 400 mc. hours, normal periods have been restored by 1525 mc. hours, profuse hemorrhage has continued after repeated treatment with 1024 and 1594 mc., respectively. Women over thirty-five will generally become amenorrheic or have very scanty or infrequent periods even with small doses. In younger women the prospect of a return to normal is somewhat better, but should never be promised. In the adolescent group, results with radium have been very poor, and it should not be used, or only as a last resort. A careful explanation of the possible consequences of the treatment is due the patient, and may save much dissatisfaction.

University of California Medical School,
Third and Parnassus Avenues.

DISCUSSION

Edward N. Ewer, M. D. (411 Thirtieth Street, Oakland).—This is an exceedingly worth while follow-up. It shows that radium will nearly always control uterine hemorrhage, but that it is occasionally attended with undesirable by-effects. This means that each patient must be thoroughly informed of the limitations of the treatment.

Young women should not be treated unless the bleeding is definitely dangerous, and radium seems preferable to hysterectomy.

Young women are more likely to have menorrhagia due to endocrine dyscrasia, while older women have, in addition, metrorrhagia due to local causes, polyps, small fibroids, cancers, etc. However, young and old should be curetted for diagnosis. Malignancy in young women is being reported more and more frequently. However, academic interest in the biopsy alone does not satisfy the patient: she wants the hemorrhage controlled, and the curettage does not do it. Many upon whom I have used radium had had one or more curettements.

I find that many women over forty, who have been troubled with excessive flowing, prefer to have the change occur without further delay. To such I have given 1800 mgh. There have been no voluntary complaints about atrophic changes.

Table 11 in the report lists six treatments as insufficient, 165 as satisfactory, and thirty-three as overtreated. This may be and probably is better than could have been obtained with any other treatment.

Overtreatment may depend upon the point of view. Of the thirty-three in this class, fourteen were apparently severe enough to demand more than the initial radium dose. It may be that most of the thirty-three were better off than when hemorrhaging, and so would be classed by some of us as reasonably satisfactory.

In sixty-two cases of uterine bleeding in private practice, exclusive of diagnosed fibroids and cancers, my results are as follows:

Only two patients were under 20 years of age; ten were between 22 and 36 years; fifty-two were 36 years or over.

Of the two young women one was purpuric. Her hemorrhages had been long-continued and resistant to treatment, reducing her hemoglobin to 15 per cent. She received 300 mgh., with only temporary improvement. One year later she was given 400 mgh., and she has been well for the twelve intervening years. Her periods have been normal in quantity, the intervals being about five weeks.

The other young woman had lost two years of college work because of her severe hemorrhages. She spent much time in bed, and ran the gamut of medicinal treatment. Some 400 mgh. of radium produced amenorrhea lasting six months, and five years later there was another cessation of menstruation for five months. With those exceptions, she has been normal for seventeen years.

Of the ten women between 22 and 36, one had two premature labors at six months, and another was not relieved by the 400 mgh. treatment.

Of the fifty-two older women, one later required a hysterectomy and several complained of menopausal flushes, two describing them as exceedingly severe. The rest were well satisfied. I have no information, however, concerning the atrophic changes mentioned by Doctor Schulze. The answers she received to that line of questioning are significant and require consideration.

I use radium element screened with brass and rubber. When it is not desired to produce permanent cessation of menstruation, from 300 to 500 mgh. only are used. When complete cessation is desired, the dosage is 1,800 to 2,200 mgh.

Curettage has been useless in my hands, and certainly hormone therapy, as we know it today, does not produce the good results Doctor Schulze has obtained with radium in menorrhagia.

It has been a privilege to hear and discuss this informative review.

*

J. Morris Slemons, M. D. (819 Pacific Mutual Building, Los Angeles).—The thoroughgoing character of the studies upon which Doctor Schulze's reports are based distinguishes the present essay. It deserves a large audience and thoughtful consideration; and it should serve to correct the indiscriminate use of radium—a practice that has become more common since commercial firms and the rental system have placed this agent at the disposal of unqualified persons. This reflection is not prompted by any desire to eliminate competition; for that reason perhaps it carries more weight. Whenever this treatment has been recommended in my own practice, the patient was referred to a competent radiologist. A conservative attitude, likewise, has led me to restrict such recommendations to individuals with whom the production of the menopause would not be an unwelcome sequel. At present it is impossible to predict when this will be the outcome, when not; for the dosage cannot be accurately measured in the case of the ovaries. Their anatomical location is too variable. My personal experience limited to the group of patients indicated has been entirely satisfactory.

For a broader view of the subject I have turned to a colleague, Dr. Erle Henriksen, who until recently was affiliated with the gynecologic clinic established by Dr. Howard Kelly, a pioneer in the application of radium to the treatment of disease.

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Erle Henriksen, M. D. (902 Pacific Mutual Building, Los Angeles).—Doctor Schulze's paper might have stressed even more emphatically the risk of routine radiotherapy for benign hemorrhagic metropathies. She has shown, by a carefully controlled series, that in the hands of the well-trained radiologist, radiation is not the dependable form of therapy, accepted by many physicians; while in unscrupulous hands it becomes dangerous.

Presumably routine studies of the endometrium were made. Unfortunately that has not always been true. Many women have had radiation without it, and to my knowledge a few have received radiation prior to a complete pelvic examination.

Traut and Kuder recently pointed out that about one-third of the so-called functional bleeding cases result from irregular shedding and irregular ripening of the endometrium. Cases of this type respond favorably to one or more curettements. Burnam believes that uterine bleeding, in the majority of instances, excluding malignant tumors, depends upon ovarian activity. Thus, in spite of the present glandular polemic, endocrine therapy should be employed before resorting to radiation. Doctor Schulze's figures, showing the marked discrepancies in the results of "ray dosage," prove that, with respect to the finer points, radiation therapy has not progressed beyond the stage of infancy. However, the pendulum seems to be on the downward swing; the use of radium in the young is becoming more conservative. Menorrhagia of benign nature should be treated by medical, endocrinal or conservative surgical therapy before resorting to radical measures, including radium.

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C. Frederic Fluhmann, M. D. (Stanford University Hospital, San Francisco).—In this study of the radium treatment of abnormal uterine bleeding, Doctor Schulze has ably shown the many disadvantages which accompany this method of therapy in women during the childbearing period. I feel very strongly that the intra-uterine application of radium or x-irradiation of the ovaries is rarely indicated for uterine hemorrhage in younger women with

no gross pelvic lesions. In addition to the difficulties which Doctor Schulze has pointed out, it must also be remembered that irradiation may result in damage to germ-plasm, which can manifest itself in succeeding generations. It is true that many women have had normal children after such treatments, but time only can tell if an injury will not produce some defect in the offspring of the second and third generations. It certainly has been amply demonstrated in insects and there is good evidence that it may occur also in mammals.

On the other hand, the use of radium for the treatment of functional uterine hemorrhage in women of the menopausal age is an effective and comparatively safe method of therapy. We prefer the use of radium to x-ray since it gives an opportunity to do an extensive curettage and thus definitely eliminate the possibility of an existent carcinoma of the fundus uteri. The dosage employed varies from 1,200 to 1,500 mghrs. The bleeding is immediately controlled in the vast majority of instances, although a slight show may at times persist for some days or weeks. In the few rare failures it has been necessary to perform a hysterectomy subsequently. One of my patients returned with a carcinoma of the fundus uteri seven years after radium therapy, so this possibility must also be kept in mind.

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Doctor Schulze (Closing).—A careful review of the pathology, with elimination of all but those conditions due to functional endometrial changes, was, of course, made in all this group, but limitation of time did not allow of its discussion here.

In general, the results in the older women were entirely satisfactory, and many wrote that they had never felt so well. A few, however, particularly of those whose menorrhagia had not been of long standing, or very troublesome, were intensely dissatisfied with the abrupt cessation of their functional activity. In the younger women, the fact that we were entirely unable to predict what may happen with a given dose of radium, and that we are so helpless to combat the results of overtreatment, must make us hesitate to employ it, except possibly as a measure of last resort. Several of the younger women, who had had long and serious bleeding, were at first delighted with their amenorrhea, or scanty periods, and their ability to resume the normal activities of youth; yet, later, wandered from doctor to doctor in an effort to overcome sterility or dyspareunia.

The possibility of damage to germ plasm, even in the first generation, is suggested by the one hydrocephalic among the comparatively small number of pregnancies following radiation in the series, and is an additional reason for being extremely cautious in its use. We feel, therefore, that except in cases where the artificial menopause is our objective, and the patient understands thoroughly what this entails, radium treatment should not even be considered except after the failure of all other available types of therapy.

MIGRATORY LABOR IN CALIFORNIA*

By Walter M. Dickie, M. D.
San Francisco

During the past ten years there has been in California a marked change in the type of casual labor which is employed on the farms and ranches of the state. Before 1927, the majority of the migratory laborers in California were Mexican, with a few Japanese, Italian-Spanish and Portuguese. In about 1928 there began to be a migration of unskilled farm labor from the Middle West to California. These people for the most part came from the eastern part of Oklahoma, northern part of Arkansas, southern part of Missouri and a few from Mississippi, Alabama, Louisiana and Texas. They are in the main whites of Anglo-American stock whose ancestors have lived for years in the hill area of the south and central United States. In 1935 a close check at the ports of entry to California shows that approximately 53,000 persons who could be classed as indigent or migratory entered the state from the 1st of January to the 1st of July. Of this number 90 per cent were white and about 10 per cent Negro.

An analysis of the reasons for the migration of this type of people to California might not be amiss. We have, first, the reasons for these people leaving their native habitat and, secondly, the need of increasing numbers of casual laborers in California.

These individuals were in their native states "share croppers" who tilled a small piece of land and divided the returns with the owner of that land. In the early part of this decade, the numerous drought seasons decreased the arable land and also the livelihood of many of the people. The amount of yearly return was further decreased by the low price of cotton, which was their main crop, and the policy on the part of the Federal Government for decreasing cotton acreage. During the same era in California, there has been a marked increase in the amount of land in truck farms and cotton acreage. At present, it is estimated that 30 per cent of the large-scale cotton farms of the United States are in California, also 60 per cent of the large-scale truck farms and 60 per cent of the large-scale fruit farms in the United States are in this state. An estimation made in 1935 by the Federal Government shows that the number of casual laborers required is approximately 50,000 in January as a minimum and approximately 200,000 in September as a maximum.

If we look into the ancestry of the majority of these people, we find them of Anglo-American stock whose families have for generations lived in the more retarded areas of the United States, whose customs, education and standard of living are far below the average for this country. We further find that they come from an area where the incidence of the communicable diseases is high, where the sanitation is poor and where the public health activities have been limited. On their migration to California they therefore brought with them a lower standard of living, endemic foci of communicable diseases and a long background of malnutrition.

Such a large group of these persons coming into the state has thrown an added burden on the local charities, the local and county health departments, the state relief agencies and on the State Department of Public Health. It has been felt that two major considerations were necessary: first, the resident population of the state must be protected as far as possible from the communicable diseases such as typhoid, smallpox and malaria that these people might bring with them; secondly, we must, as much as possible, rehabilitate these individuals especially in housing, sanitation and nutrition so

* At several meetings the public health problems involved in migratory labor settlements have been up for discussion in the California State Board of Public Health. At the editor's request, the Director of the Department has submitted the following memoranda on the subject. See also in this issue: Editorial Comment on page 74, a letter on page 131, and press clippings on page 141.

that their children and their children's children who will become future citizens of the state will have equal opportunity for a normal life under the average standards of living.

Early in 1937, the State Department of Public Health, with aid from the Federal Government, began an intensive campaign of immunization against typhoid fever among these migratories. During January, in Madera County, approximately 739 individuals were given three injections of typhoid vaccine at weekly intervals. During February, in Imperial County, approximately 1,000 individuals were similarly immunized. In March, a prospective trainee for the School of Public Health commenced immunization against typhoid fever, and has to date given 17,000 injections. Additional health officers connected with the School of Public Health will be placed in the field during the summer and fall, in order to increase the number of immunizations, as it is necessary that this work be done for our own protection.

There has been, during the past year, an effort on the part of the Federal Resettlement Administration to provide more adequate housing facilities for these migratory people. They have had in operation since January two migratory labor camps, one at Arvin, near Bakersfield, and the other at Marysville. At present they are building four or more camps, which they expect to have completed by the 1st of August. At the request of the Resettlement Administration, the State Department of Public Health made arrangements with the aid of federal funds to place public health nurses in the migratory camps. We have at present one nurse at Arvin who works not only in the established camp of the Resettlement Administration, but also in the squatters' camps of that area. She has done a great deal to instruct and help these people in child hygiene, nutrition, and home nursing care, and aiding in the control of communicable diseases among them. Too much cannot be said of the splendid coöperation that has been given by the county health departments in this work. In the last part of February, another nurse was placed in the Resettlement Administration camp at Marysville. She also has done a most excellent piece of work among these migratory peoples, and has received full coöperation from the health departments.

For the coming year, it is planned to place in the field six public health nurses and two full-time health officers to work among these migratory people. They will act in coöperation with the established county health units in promoting sanitation, adequate housing, nutrition and control of communicable diseases in the Resettlement Administration camps, the grower camps and the casual squatters' camps where these migratory people are found. Immunization for typhoid fever will be continued and immunization for diphtheria will be begun. It is hoped that further help from a nutritionist can be obtained to teach these people to cook balanced meals which will come within their income range.

These people are not residents of the state, or of the county in which they are found, and are, therefore, not entitled to hospital or medical aid from the counties, so it is necessary in cases of acute illness to prevail upon the counties to admit them for hospitalization, or to call upon the health officer or the private physicians of the community to donate their services. This activity may be considered as an emergency service, for the residence of many of these people is only temporary, and if they remain in California, they will eventually become residents of the state, when there will be no further need for this type of work.

313 State Building.

THE LURE OF MEDICAL HISTORY†

SARRÍA'S TREATISE ON THE CESAREAN OPERATION, 1830*

By Sherburne F. Cook, Ph.D.
Berkeley

I**

INTRODUCTION.—The two documents which are here presented as translations afford an insight into a medical problem which at one era in the history of the state attained considerable significance. This problem involved the extraction of fetuses from pregnant mothers when the latter died for various reasons, in order that baptism might be given. What rendered the situation unusually perplexing was that practically no competent medical men, or even midwives, existed who were capable of performing what is here called the cesarean operation. The only individuals with the requisite intelligence and interest in the matter were the missionaries. They encountered the situation mentioned very frequently among their neophytes, the converted Indians, of which there were many thousands. Furthermore, it was also to their interest that the spiritual needs of the white population be properly cared for.

HOW FATHER PREFECT VICENTE FRANCISCO DE SARRÍA MET THE PROBLEM

Thus we find that, during the later days of the missions, the Father Prefect, Vicente Francisco de Sarría,[1] considered the question one worthy of his devoted attention. Although himself by no means versed in medicine, he read what literature he had available, utilized a wide personal experience, and wrote out a treatise on the cesarean operation for the benefit and guidance of his followers. This

†A Twenty-Five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of California and Western Medicine. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.

*From the Division of Physiology, University of California Medical School, Berkeley.

** In three parts.

1 Vicente Francisco de Sarría was born in 1767 at San Estévan de Echabarris, near Bilbao, Spain. He entered the Franciscan Order as a young man and came to Mexico in 1804 as a missionary. After serving five years in the College of San Fernando, he came to California in 1809, where he remained until his death in 1835. He served as missionary at San Carlos, 1809–1829, and at Soledad, 1829–1835, where he died at his post. He held the position of Prefect of the Missions, 1813–1819, and again, 1823–1830. From 1823 to 1825 he was also Father President. He is buried at San Antonio Mission. He was generally regarded as one of the best and ablest of the Franciscan missionaries.

treatise, which occupies itself as much with theologic as with strictly medical matters, represents the serious attempt of an intelligent man to contribute to the existing knowledge of his place and time. As such it may be regarded as the first original contribution ever offered by a resident of California in the field of medicine.

FATHER SARRÍA'S LETTER AND TREATISE

It should be noted particularly that the procedure which Father Sarría terms the cesarean operation is not precisely what we today understand by that term. It did not involve the removal of a fetus at full term from a living female—for this could not be done, under church law, by a Catholic clergyman—but rather the extraction of a fetus after the mother had died from other causes. The general method, however, was much the same as with a living subject.

Finally, it may not be amiss to point out that this treatise, together with the introductory letter, not only discusses numerous problems of a theologic, legal, and social nature, but also paints a striking picture of the status of medical theory and practice in California a century ago.

* * *

FATHER SARRÍA'S LETTER

"Hail Jesus, Mary and Joseph![2]

To our apostolic fathers and missionaries from the mission of San Carlos to San Francisco Solano:

My very dear Fathers: May Jesus Christ bring you health and peace.

I have never seen any circular or public paper appertaining to our ministry, since by the Grace of the Lord I have been connected with it, which treats of or so much as makes the slightest mention of the cesarean operation.

Nevertheless, an acquaintance with it in many circumstances is important, for the salvation of numerous souls depends upon it as a regular procedure. And since personal and domestic examples are most moving and effective for purposes of persuasion, a single such case may be quoted to illustrate the point. In the work of the Cistercian Monk Antonio Josef Rodriguez,[3] entitled *Nuevo Aspecto de Teología Medico Moral,*[4] where, together with much other material, that illustrious author treats thoroughly and scientifically of the cesarean operation, it may be perceived that one of those who have most advanced this operation in recent times with respect to its potentialities for opening the gates of eternal salvation to aborted children, has not only been of our sacred calling, but also has been actively engaged as Apostolic Missionary. This [Cistercian Monk Rodriguez' book] was a result of his observations with reference to the operation during the course of his career as a missionary.

And because it is worthy of some notice on our part I will quote what the above-mentioned author states in this regard [*i. e.*, with regard to the mission problem]:

Volume 4 of the book cited, Paradox 1, marginal number 24:

And in consideration of the same I will add that in the year 1760, when I was soliciting in Madrid the revision and publication of my books, the learned and pious Father Deoclato de Cuneo,[5] an observant priest, published in Venice a volume concerning the salvation of stillborn and aborted children. Filled with the spirit of charity and love of his fellow men, he asserts that he was moved to write this work concerning the baptism of fetuses and the opening of dead mothers in order to aid the child with baptism, because of the repeated experiences with the loss of innumerable souls, due to neglect of abortion cases, which he knew of and saw in the course of his missionary work.

Thus speaks the illustrious Cistercian. He adds, also, that such having been the impression made upon his soul (to wit, that of the learned missionary of whom he there refers) by this negligence and the care which he believed would constitute the remedy, and in order to anticipate all contingencies, he deliberately studied—as may be seen in his book—everything there is and can guarantee the certainty of his method. In various other parts of his book (*Nuevo Aspecto,* etc.), he quotes with particular respect that good Father and missionary.

And since, speaking of missions, it is not believed even among the faithful that these cases are very rare, permit me to relate here what happened to me in the few trips I made to them [the missions] while I was staying in our Apostolic College[6] before coming to these missions.

There died a pregnant woman in the locality of the mission where I was staying (it was called Coatepeq), to whom I was called, by agreement, to hear her confession, as it seems to me, a short time before her death. She having died and the priest being absent from the district in which we were, the other father (of those of us who were managing the mission) and I, by reason of the obligation under which we perceived ourselves to be in the matter, prepared to do the operation. Not knowing any competent person of whom we might avail ourselves, we took the book which described the operation in order that, while one was reading the appropriate passage and the other executing according to the letter, we might set about the work.

However, there appeared and spoke to us the midwife, a mature woman, who seemed experienced in her profession. She assured us that the

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2 This is the covering letter written by Father Sarría to his missionaries. It is dated at La Soledad, July 26, 1830. Both documents, in the original handwriting, are bound together in a small volume in the Bancroft Library, University of California, Berkeley.

3 Antonio José Rodriguez, a Benedictine monk, was born in Mérida, Spain, in 1705 and died in 1781. He was a well-known writer on medical and theological subjects. Aside from the work mentioned here, he wrote various books and pamphlets, including *Disertación Sobre el Gran Problema de la Respiración* (Dissertation Concerning the Great Problem of Respiration).

4 Literally: New Aspects of Medico-Moral Theology. This work is not listed in the Library of Congress Catalog, nor is it to be found elsewhere in this country, so far as I am aware, although it is mentioned in the Manual del Librero Hispano-Americano by Antonio Palau y Duleet (Barcelona, 1923–7). Any information concerning the present location of a copy would be appreciated by the writer.

5 I can find no trace of this individual. The orthography in the Sarría letter is obscure. The name is spelled both Deoclato and Desclato. He evidently was an Italian, since Cuneo is a province in Piedmont, northern Italy. I also can find no information concerning Hyldmo and Tegjos, subsequetly mentioned in these documents.

6 The Apostolic College of San Fernando, the headquarters of the Franciscan Order in Mexico.

fetus was dead, for a reason or reasons which she gave us, but which I do not remember now. However, we considered them adequate to warrant our believing her and desisting from the operation—and we actually did desist.

If the case were presented to me now, after I have read Father Rodriguez in his above-mentioned book, *Nuevo Aspecto de Teología Medico Moral,* etc., surely I would not hesitate and, while it was within my power, I would take measures to complete the operation.

The said Father Rodriguez quotes the clearest testimony of physicians outstanding in their profession, and even of Protestant authors in support of the thesis that one should not fail to open any woman who dies pregnant, and refers to the instance in which Hyldmo, an excellent surgeon, admits, himself, to have been mistaken. The latter believing the fetus to be dead, nevertheless proceeded with the mother sufficiently to demonstrate that it had died. But actually the fetus was removed alive and did not die until the third day afterward. Thereupon he [Rodriguez] adduces in confirmation another noteworthy example:

But still are his words (on page 26, Volume 4 of the above-mentioned work) even more to the point in elucidating the matter in the case encountered by this same Cangiamila[7] in October, 1736. A poor woman in his own parish died in a pregnant condition. The midwife, who was of long-standing in her calling, and the surgeon, who was well known and had practiced in the Hospital of the Holy Ghost at Rome, attested and asserted beyond any doubt that the fetus had already died two days prior to its mother. Cangiamila, in nowise disturbed, had the deceased opened and removed a live girl, whom he himself baptized under the name of Placida and who lived a quarter of an hour. The learned and pious Ecclesiastic was desirous of completing fully his triumph. He buried the baby girl with much ceremony, officiating at the interment himself, an action which caused great spiritual joy to the entire city.

Thus speaks the celebrated Cistercian, author of the *Nuevo Aspecto,* etc., a book which, as a matter of fact, is not so very recent, for we saw above, according to his statement, that in the year 60 of the previons century he was making a revision in order to give the work to the press.

The subjoined practical manual (*práctica*) of the cesarean operation is derived almost entirely from what I have seen of this author's description (it contains nothing of my own, save that I have had a copy made of the original draft, which I am enclosing)—that is to say, according to the teaching of the best surgeons and especially Francis Mauriceau,[8] a French surgeon who practiced the art of obstetrics for forty years in Paris. Monsignor Cangiamila and the above cited Desclato [says Rodriguez] describe it also, but he thinks the method of Mauriceau is to be preferred because of its extensive use.

I hesitate to mention to your reverences the matter of making a copy of this, for I know very well the difficulties and embarrassments, in addition to other perplexities, which at present beset us in our ministry.[9] But I would wish, my fathers, considering the object in view, since the situation not only might conceivably arise, but in fact cannot fail to arise in the regular course of events, particularly if the proper measures are taken to ascertain in the case of the demise of all women of the appropriate age and condition, whether or not they are with child, according to the obligation of charity to suffer no soul to perish, and since the remedy is now a standard procedure, clear and easy, such as the one I am giving you—I would wish, I say, that your reverences would make a slight demonstration of the ardor of your zeal and charity for the better discharge of your obligations in this respect by copying, or causing to be copied, the document I am transmitting to you, unless there be already in the mission another one [copy] or perhaps some approved book which treats in detail of the matter and which belongs to the mission. This is in order that practical directions may never be lacking there by which you may be guided whenever it may be necessary or desirable to perform the cesarean section.

Furthermore, it is not sufficient to the purpose that he who is father minister [of a certain mission] at present be acquainted with the operation or be able to perform it without the necessity of further instruction, inasmuch as after him may come some other who, according to the chances of our ministerial destiny, does not know about it.

In order that this copy may be made, as your reverences perceive I particularly recommend, you may retain the circular for eight or ten days and thus take whatever time is convenient to do it. Also, to further the same purpose and in order that the business may not be too long delayed, I myself have had copies made such that one may go from here [Soledad] as far as Santa Barbara, and on the way may circulate the intermediate missions in the regular manner.[10] Another, which is sent directly to San Buenaventura should circulate the missions successively from there to San Diego, and still another at the same time as the former ones through the missions from here to San Francisco Solano.

After having been signed in sequence this letter, with the copy which accompanies it, should be returned from the last mission.

May we remain united in the prayers and holy sacrifices of your reverences, and your beautiful and fervent ministry in the Lord.

Fr. Vicente Francisco de Sarría.

Soledad July 26, 1830."

(To Be Continued)

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7 Francisco Manuel Cangiamila, born in 1702 in Palermo, Italy, died in 1763; was Inquisitor-General for the kingdom of Sicily. He was regarded also as a pioneer authority on embryology, having written a work, *Embriología sacra,* etc.

8 Francis Mauriceau was born in Paris (date unknown), and died in 1709. He is described as being an able general practitioner, but is chiefly famous as an obstetrician and gynecologist. He wrote several authoritative works in this field.

9 He refers here to the troubles accompanying the secularization of the missions, which was finally completed some three or four years afterward.

10 The copy of the treatise in the Bancroft Library has inscribed on its title page, "San Antonio Mission," which would indicate that it was the copy which circulated to Santa Barbara. However, the signatures appended to the letter are those from the northern missions as follows: Ramón Abella (San Juan Bautista), Felipe Arroyo de la Cuesta (San Juan Bautista), Juan Moreno (Santa Cruz), José Viader (Santa Clara), Narciso Duran (San José), Tomás Estanega (San Francisco), Juan Amoras (San Rafael), and Buenaventura Fortuni (San Francisco Solano).

CLINICAL NOTES AND CASE REPORTS

PRIMARY RETROPERITONEAL SARCOMA*

By V. Blanche Slagerman, M.D.
Los Angeles

REPORT OF CASE

History.—H. G., a Mexican housewife, age forty-nine, was admitted to the Los Angeles General Hospital, January 15, 1935, complaining of complete urinary retention, accompanied by pain in the bladder region of twenty-four hours' duration. Two years prior to admission the patient had noticed a tumor mass in the lower abdomen approximately seven centimeters in diameter. The tumor gradually increased in size until it reached the umbilicus. She could not remember the date of her first menstrual period, but menstruated regularly every twenty-eight days for three years. The last menstrual period was January 1, 1935. She was married at sixteen and had never become pregnant. Her past history by systems was irrelevant.

Examination.—The patient was an emaciated Mexican female. The pupils were equal and regular, and reacted to light and accommodation. Her teeth were carious. The pharynx was injected. The heart revealed no abnormalities. The lung fields were clear. There was a smooth cystic mass in the abdomen arising from the pelvis to the level of the umbilicus. The pelvic examination revealed a well-supported perineum; the cervix held high under the symphysis; the corpus was anterior and of average size and consistency. There was a fixed tumor mass filling the pelvis and extending to the umbilicus. The lower portion of the mass, which bulged into the cul-de-sac, was firm, while the upper portion was cystic. On catheterization, 1,000 cubic centimeters of urine was obtained.

The laboratory findings were as follows: The blood count revealed: Hemoglobin, 70 per cent; red blood cells, 3,400,000; white blood cells, 8,400, with 68 per cent polymorphonuclears. Urinalysis revealed six to eight white blood cells per H. P. F. The blood Wassermann was four plus.

Course.—A laparotomy was done January 25, 1935. The abdomen was opened by a suprapubic midline incision. The urinary bladder had been displaced upward to the level of the umbilicus. The uterus was of average size and consistency, and was held in an upright position above the rim of the pelvis; its posterior surface was roughened by recently formed adhesions. The tubes were patent and the ovaries were normal in appearance. Retroperitoneal and posterior to the uterus was a mass extending down to the hollow of the sacrum. The exact size of the mass was not obtained because the cystic portion, which contained blood-tinged fluid, was aspirated before removal from the abdomen. The lower portion consisted of a smooth vascular mass measuring 14.5 x 7.5 x 6 centimeters, and was enclosed in a glistening capsule. The central portion of the mass was composed of rather firm white tissue, while the peripheral portion appeared to be cystic, hemorrhagic in character, and much softer in consistency. The microscopic examination revealed a spindle-cell sarcoma.

Postoperatively there was a serosanguinous drainage from the wound for several days, and the patient had a mild pyelitis which cleared under symptomatic treatment. X-ray of the chest on February, 1935, was negative for metastasis. In April, 1935, approximately three months following surgery, x-rays of the chest, long bones and pelvis bones, were negative.

COMMENT

McCallum defines a sarcoma as "a tumor arising from connective tissues and retaining most of the general characteristics of connective tissues, but endowed with the new power of invading and actively destroying adjacent structures, and of forming colonies of its own in tissues of distant organs." These tumors are classified by the type of cell of which they are composed. The spindle-cell type, which was found in the tumor described above, is one of the more common types of sarcomata. They are composed of spindle-shaped cells very uniform in size and held together in bunches by scanty intercellular tissue and many thin-walled blood vessels. Metastasis occur in the regional lymph glands, but more commonly in the lungs and liver.

As the name denotes, the sarcomata under discussion are found retroperitoneal. The term was first applied by Lobstein in 1829, but included those originating behind the peritoneum foreign to the retroperitoneal organs, and those metastasizing from other organs.

Steele, in 1900, in a classical review of the literature, collected some sixty-one cases, and in 1904, in a second paper, cited thirty-five cases. In 1920, Trout and Meekins added twelve more cases to the list. In 1922, Andrews, in a very scholarly report, added six more cases from the literature, and twenty-eight from the Mayo Clinic. In 1930, P. H. Cook reported a case. With the case reported above, we find the total to be 144.

The etiology of sarcoma, and the retroperitoneal type in particular, is a matter of speculation. The fourth to the sixth decades of life seem to give the greatest number of cases. In the Steele series the youngest individual to present such a tumor was under one year of age and the oldest seventy-eight years. The youngest patient reported by Andrews was two and one-half years of age, the oldest sixty-two years. The incidence is greater in the male than in the female. There are fewer cases reported in the region of the pelvis than any other location.

The more common types of retroperitoneal tumors are the spindle-cell sarcoma and the small round cell, or lymphosarcoma. In the early stages the tumors, which are rarely multiple, are usually firm and lobulated, and later become hemorrhagic and undergo cystic degeneration.

The symptoms of these tumors are indefinite because they grow slowly and, therefore, pass unnoticed until they produce pressure symptoms or involve vital organs. In the pelvis, interference with bladder function seems to be an important symptom, and pressure on nerves and vessels give pain and edema of the legs. The constant signs of retroperitoneal sarcomata are: low-grade fever, loss of weight, secondary anemia, and the presence of the colon in a groove on the anterior surface of the tumor. Because of the indefinite symptoms and the difficulty in differentiating abdominal tumors on examination, the retroperitoneal sarcoma goes undiagnosed in the great majority of cases until surgical intervention. The course of the disease is variable, depending upon the location of the tumor and its rate of growth, which may last from one month to years.

* From the Los Angeles County Hospital.

The treatment of retroperitoneal sarcomata has been mainly surgical, with variable results. Often, because of the location and involvement of vital structures, surgery is difficult and unwise. Radiation was first used in this type of case, and perhaps in connection with surgery will prove a valuable form of treatment. With the advent of modern laboratory and clinical method the mortality and morbidity should be lessened.

IN CONCLUSION

1. Retroperitoneal sarcoma should be added to the differential diagnosis of abdominal tumors.

2. Metastasis occur in 33 per cent of the cases, most frequently to the liver and lungs.

3. Signs of retroperitoneal sarcoma of the pelvis are: disturbance in bladder function, loss of weight, secondary anemia, low-grade fever, and the presence of the colon in a groove on the anterior surface of the tumor.

4. Surgery and radiation are the accepted form of treatment.

1625 West Santa Barbara.

BONE DRILL FOR PINS AND WIRES*

By Gordon Monroe Morrison, M.D.
San Mateo

SKELETAL traction, using Kirshner wires or Stienman pins, is the method of choice in many fractures. Difficulty is often met in driving or drilling these wires through the tissues. The most common sources of trouble are mechanical in nature, and come from the rotary movement of the wires which very often wind up various soft structures on the wires. This tissue may become so bulky as to prevent the wire from going through the cortex. It is also quite possible that important structures may become avulsed by this motion. After the use of motor-driven or fast mechanical drills, there is often observed in subsequent x-rays so-called ring sequestra, which are due either to wrapping up on the wire of soft tissues, or periosteum or actual cauterization of the bone by the frictional heat.

In introducing the larger pins, especially in femur work, the various keys, hand chucks, etc., although they do not tend to wind up the soft structures, are so inefficient mechanically that much excess time and energy are consumed in introducing these pins.

By making a few changes on a valve-grinding tool, which sells for less than one dollar, we have produced a very efficient and easily operated drill for introducing both pins and wires, which prevents winding up of soft tissues because of the reciprocating movement. It greatly facilitates the introduction of large pins because of the mechanical advantage. It is not possible to run the device fast enough to cause any damage due to frictional heat.

The instrument, as shown in the illustration, is a valve grinder with the shaft hollowed, lengthened to about twelve inches, and a one-fourth-inch chuck placed on the end of the shaft. The pin or wire thus lies within the hollow shaft. The entire apparatus may be sterilized.

Medical Arts Building.

* From the Orthopedic Service of Dr. E. W. Cleary, San Mateo County Hospital.

Fig. 1.—Converted valve grinder with hollow shaft, chuck and Kirshner wire.

Fig. 2.—Ring sequestra in humerus following use of Kirshner wire with ordinary drill.

EVIDENCES OF CURE OF GONORRHEA IN THE MALE

By William H. Rambo, M.D.
Los Angeles

THE question of cure and the propriety of marriage in gonorrheics is an ever-recurring one which must be answered by the physician with utmost care, since no little potential suffering and misery depend upon the accuracy of his statements.

Much of the gonorrhea existing today is the result of carelessness in this regard. Pronouncing

a patient "cured" requires a great deal more than a macroscopic study of the urine alone, since a clear urine is very common in patients who are not cured and will not be cured for months.

In determining a cure one should remember that the mucosa of the anterior urethra in a high percentage of men remains sensitized to the gonococcal toxins for months. This constitutes a very good index of cure, since it invariably shows a purulent response to these toxins within a few hours. Consequently, through the emptying of retained gonococcal products into the urethral lumen, we can usually prove, by studying microscopically the resultant discharge, that our patient is not cured, or, if this is insufficient, by considering the centrifuged urinary sediment.

There are various methods by which these areas can be made to empty into the urethra. The small crypts of the urethra are usually emptied of their contents by a massage over a capacity-sized sound, and digital massage is usually sufficient to empty the prostate, the seminal vesicles, and the Cowper's glands. Several such attempts are frequently necessary, since a focus that is not emptied at one time may become so on repetition of this procedure. Should these measures fail to produce macroscopic or microscopic evidences of infections, a provocative alcohol diet may bring about a recurrence.

Every urethra should be carefully examined, for inflamed crypts and urethral glands, through the urethroscope which, in trained hands, is invaluable as a diagnostic instrument. A word of caution, however, seems appropriate, since the novice is prone to use this instrument carelessly, and at a time before the urethral mucosa has healed sufficiently, thus causing an unnecessary acute exacerbation which may prove embarrassing.

Occasionally even these procedures fail on the uncured patient. The infection may remain dormant for months, or until the patient indulges in prolonged sexual excitement or actual coitus, when it often reappears and infects his partner. For this reason he should be warned not to have any sexual relations for at least three months without the use of a condom.

Opinions[1,2] vary as to the value of the compliment-fixation test as a criteria of cure, since some long-standing gonorrheas may never exhibit a positive blood test, and others show a positive blood many months after the case is otherwise negative. In 1932, Price[3] introduced a new antigen and improved technique which greatly enhanced the value of this test; however, in my hands it has been a disappointment as a test of cure, but it frequently is of value in diagnosing metastatic gonorrhea and, during treatment, as an indication of efficient drainage. Especially is this test unreliable when vaccine therapy has been employed.

Experience shows that isolation of the gonococcus from the vesiculoprostatic fluid by cultural methods in these apparently cured cases is one of the most difficult of laboratory procedures. However, I have been successful in isolating the gonococcus in many clinically cured cases by using hydrocele dextrose agar as a media, and employing the oxidase reaction described by Gordon and McCleod,[4] and more recently by Carpenter and Leahy,[5] to identify the Neisserian group on the culture surface. These colonies are then picked off with a platinum loop, spread, and stained by Gram's method. A careful microscopic examination is necessary, since all members of the Neisserian group give a positive oxidase reaction, and false positives are given by a thin filiform type of B. coli and B. subtilis. This test is rapidly gaining favor as a criterion of cure, since it is accurate in more than 90 per cent of the known cases thus examined.

In evaluating this test, one must remember that one negative is never sufficient and cannot be accepted as a criterion of cure, notwithstanding negative clinical observations and negative pathologic and bacteriologic tests. I consider this test of sufficient importance to repeat it at monthly intervals, until three consecutive negative cultures have been obtained during the period of observation following treatment. A positive growth is definite evidence against cure.

SUMMARY

1. A complete absence of purulent urethral discharge and a urine containing no evidence of infection are insufficient evidences of cure.

2. Negative microscopic spreads from the urethral mucous, prostatic secretion, seminal fluids, and urinary sediments are important presumptive tests.

3. Negative macroscopic and microscopic findings following repeated efforts to create discharge by the passage of sounds and massaging upon them, and digital massage of the prostate, seminal vesicles, and the Cowper's glands suggest probable cure.

4. Negative urethroscopic findings are essential to cure.

5. A provocative alcohol diet and sexual indulgence are of definite value as a preliminary to the final tests.

6. The complement-fixation test yields good evidence of efficient treatment, but not necessarily of cure.

7. The inability to isolate the gonococcus by cultural methods at monthly intervals, together with negative clinical findings, are strong evidences of cure.

523 West Sixth Street.

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BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

ERYSIPELAS

I. SYMPTOMS

Fred H. Kruse, M. D. (384 Post Street, San Francisco).—Like all other infections, the primary effects of erysipelas include the local symptoms referable to the focal invasion and the general or constitutional reaction. The secondary effects, and therefore the complicating symptomatology, result from the spread of the streptococcal infection into other organs such as the joints, kidneys, or central nervous system.

Erysipelas is a violent inflammation of the superficial lymph channels, and occurs most frequently about the face and head, probably because of the excessive number of superficial lymphatic vessels in these regions. This is characterized by a disseminated inflammation of the skin. Tension of the cellular tissues becomes very marked, and as the inflammation advances, a sharp line of demarcation is usually noted at its edge, clearly distinguishing the swollen, raised and reddish area involved from that of the adjacent, normal skin. Blebs may form on the surface from the intense irritation of the papillary layer of the skin. When the deeper lymphatics are affected, a great deal of effusion takes place in the cellular tissue, and cellulitis results.

There may be a wound or break in the skin from which the redness starts, or there may be no cutaneous evidence of the seat of the infection. A fissure in the skin at the opening of the nares, especially associated with a recent cold, is a most frequent start for erysipelas of the face. The inflammation may extend to the fauces or tongue, or proceed painlessly up the eustachian tube, involve one or both eyes, and even cause blindness. The delicate skin of old people, slightly traumatized, eczematous lesions, trivial scratches or abrasions anywhere, may be the site of ingress of the offending streptococcus. There may be red streaks showing lymphatic channels extending from a wound to the point of acute inflammation, or, having traveled up the lymphatics, the organism may start the erysipelatous process at a distance from the seat of entrance. The local area involved is tense, hot and painful, and very tender to touch. With the onset of the disease, fever develops, and may rise to 104 degrees Fahrenheit or even higher. This is frequently preceded by a chill. Intense malaise, accompanied by muscular pains and prostration, with headache, rapid pulse, sweating, and dehydration may follow. On the other hand, fever may not be excessive, depending upon the dissemination of the infection. It may be a continuous, remittent or intermittent type. Occasionally no fever occurs, usually when the immunizing functions are inadequate, and some of these cases may be very grave.

A high white-blood count, with increased polymorphonucleated cells, is generally found, the leukocytosis varying with the degree of fever. In about one-third of cases of severe erysipelas the blood culture is positive for streptococcus, but this does not necessarily imply an unfavorable prognosis.

The usual gastro-intestinal symtoms of an intense infection develop, with varying degrees of nausea, vomiting, thirst, anorexia, and a badly coated tongue.

The urine is concentrated, highly colored, and albuminuria may be considerable. Bile pigment, red blood cells, and casts may be found.

The spleen may be palpable, and lumbar pain is frequent.

Sore throat, tonsillitis, tracheitis, and even pneumonia may ensue.

There are many very mild cases of erysipelas lasting only a day or two, but usually the disease delineates its course in two or three weeks. The duration is uncertain, however, and often it subsides only to reappear again, traveling over the whole body and even attacking the same locality again.

Like chronic recurring herpes simplex, erysipelas may habitually reattack the same individual many times, most frequently about the face, from a chronic nasal focus.

The secondary effects or complications include not only those I have named about the head, throat, and eyes, but the streptococcus may localize in the lungs, producing pneumonia and empyema; the kidneys in 38 to 40 per cent of cases causing a nephritis; the heart, resulting in myocarditis and endocarditis, and in the joints as a synovitis or suppurative arthritis. Meningitis and mastoiditis are not uncommon. In fact, no system or organ of the body may escape the ravages of this form of streptococcus infection.

* * *

II. ETIOLOGY AND DIAGNOSIS

R. Manning Clarke, M. D. (1219 Hollingsworth Building, Los Angeles).—Erysipelas has been known from the remotest antiquity. It is clear from the writings of Hippocrates that it was known long before his time. Hippocrates, Galen, and Celsius, all three wrote extensively regarding it. They all distinguished the traumatic from the idiopathic, and gave very good descriptions of the condition clinically.

The ideas of these ancient writers on the subject of its etiology are most interesting. They recog-

nized its seasonal occurrence in spring and fall. From this they drew the conclusion that "there were certain poisons" in the air of certain weather conditions that caused the disease. It was clearly recognized that those living in bad, uncleanly conditions were especially prone to suffer from the malady. Whether or not it was because of these two conditions, *e. g.*, the weather and unsanitary surroundings, cannot be said; but one gets the inference that they felt there was some earthy influence with which they had to deal. All writings of this time are full of talk about telluric influences. Tollus, the Roman god of the earth, was accredited by many lesser writers with the power to influence this disease.

Galen lay great stress upon certain biliary changes which influenced the blood and was thereby a specific cause of the disease. "Poisons of the bile," circulating in the blood, were put forward by many writers, following him, as the most probable cause of the disease. This idea really held forth until the end of the eighteenth century. At this time in England (1777), John Hunter and Gregory suggested that the nature of the disease might be parasitical. Velpeau and Trousseau in France began at once to support this idea, with the result that the old explanations began to weaken. Wernher, Billroth, Volkmann, and many others, soon endorsed the new teachings.

Nepveau was the first to discover organisms in the lesion of erysipelas in 1870. Lukomsky (1874) then showed that the organisms were in the lymph spaces, and not in the blood vessels. Nothing of any account happened after this until Fehleisen (1882) discovered a coccus that occurred in long chains in the lymph spaces. He worked constantly with this organism and shortly thereafter he was able to grow it in pure culture. He named it *Streptococcus erysipelatus*. With this organism, Fehleisen was able to produce the disease in both rabbits and humans under classical conditions, and felt the ultimate answer had been provided.

Von Jochmann, Widal, and others, soon objected to the finality of the conclusions regarding this, and suggested that erysipelas could be produced by any streptococcus taken from a case of peritonitis, for instance. . . . It is now generally accepted that erysipelas is caused by a streptococcus belonging to the beta group; that is, streptococcus hemolyticus. However, Gay, in his celebrated recent text, says: "Howell, Tunnicliff, and Birkhaug, all came to the conclusion that erysipelas cocci belong to the single antigenic group in contrast to hemolytic varieties from all other sources. Birkhaug has extended his conception by means of interactions between the toxin of erysipelas strain and a corresponding antitoxin. Schwartzman offered another criterion of differentiation in his assertion that erysipelas strains are specifically susceptible to a particular streptococcus bacteriophage. Subsequent work by Singer and Caplan, by Okell and Parish, and by Williams, based also on toxin antitoxin experiments, *led them to the directly opposite conclusion, namely, that the streptococcus of erysipelas does not possess strict biologic specificity, with which we should agree until further information is available.*"

Secondary Etiology.—Temperature and climate have quite a direct influence. The disease occurs almost entirely in the temperate zone. Its seasonal variation has always been noted. Cold months of spring and fall are apt to cause an increase. April, I believe, heads the list of all months.

Uncleanly habits, failure to observe the fundamentals of personal hygiene are important. Unsanitary conditions, especially in plumbing and housing, poor ventilation, and overcrowding, can usually be depended upon to bring about epidemics or outbreaks. This is true in families, but still more so in barracks or institutions.

Lowered individual resistance is a direct invitation to the disease. It may be either local or general. Trauma of any kind, whether gross or microscopical, is an important factor. Alcoholism, malnutrition, excessive childbirth, the parturition period, nephritis, carcinoma, and other factors too numerous to mention, are well understood in their influence over erysipelas.

The diagnosis of erysipelas after the presenting skin lesion is relatively easy. It is in those patients in whom the prodromal symptoms are of long duration, or where the skin manifestation occurs in an atypical form or site that diagnosis becomes difficult. For the most part, there are only a few conditions which offer differential diagnostic possibilities.

It is essential to have the chief diagnostic features of erysipelas in mind before attempting a differential diagnosis. We must remember that erysipelas may be any gradation from a relatively benign ambulatory condition to an extremely toxic one, resulting in a fatal termination, depending upon the virulence of the organism, the resistance of the host, and the part affected. It is unusual that a truly acute erysipelas does not have the usual prodromal symptoms of malaise, nausea, chills (with fever ranging from 102 to 107), depression and severe headache. This is followed in twenty-four to seventy-two hours by the rather small, sharply circumscribed, edematous, shiny, bright red, dermal manifestation. This spreads rapidly, even involving the mucous membrane, usually stopping at the hair margin unless of virulent character. When the hair or beard is involved, there is usually a resultant temporary alopecia. The area seldom becomes larger than palm-sized, but may involve an entire extremity or even, in some fatal cases, the entire integment. When the eruption develops rapidly, and severe edema is present, vesicles or bullae appear superimposed upon the above lesions.

It is quite common to have erysipelas follow insignificant operations, such as pricking the ear for blood, incising a pustule, or even vaccination, as well as more serious operations such as sinuses, episiotomy, appendix, and mastoid.

The acute dermatitis venenata with severe edema and superimposed bullae will oftentimes

assume a rather sharp demarcation, particularly in cases of occupational etiology such as plant or chemical allergies. In these cases the lack of constitutional symptoms and the suggestive history, plus the positive contact or patch test, are sufficient for diagnosis.

The chronic circumscribed eczemas or lichen chronicus simplex cases are of relatively long duration and, although sharply marginated and deeply infiltrated, are usually lichenified and covered with an adherent whitish scale in contradistinction to the bright red, shiny, edematous and oftentimes bullous erysipelas lesion. Acute infectious exanthema exhibit the coalesced erythematous papulo-vesicular puncta, which tend to be more generalized and results from toxic absorption rather than infection with the streptococcus.

In streptococcal septicemia, many times areas of typical erysipelas will appear during the course of the disease which often results fatally.

Occasionally lupus erythematosus assumes an acute form which frequently affects the cheeks, eyelids, nose, ears, and mouth, causing a rather sharply demarcated erythematous, edematous, occasionally bullous eruption quite consistent with an acute erysipelas. It usually affects the hands or some other part of the body, and does not have the severe constitutional symptoms.

The simple erythema multiforme, may occasionally be confused with erysipelas, but should not be for long. The multiplicity of lesions and their tendency to remain *in situ* without extension, as well as much less severe prodromal and systemic symptoms, rule this condition out.

Lastly, one must consider the entity described by Rosenbach as erysipeloid, in which he refers to those cases caused by trauma, and particularly fish or crab trauma. The eruption consists of a migratory, sharply marginated violaceous eruption which usually has no systemic symptoms. It is thought that it is caused by a fungus or "ringworm" infection. Streptococci are rarely found.

Erysipelas is a condition which requires considerable ingenuity at times, both in diagnosis and in treatment.

* * *

III. TREATMENT

Edward B. Shaw, M. D. (384 Post Street, San Francisco). — The course of erysipelas is extremely variable without respect to the treatment employed. Rapid regression often occurs spontaneously, sometimes encouraging optimism concerning whatever therapy may have been employed; but no less frequently is this optimism dashed by immediate recurrence in the case in question, or by a complete absence of comparative therapeutic effect in other cases. It can only be said that this disease is unsatisfactory to treat, and that the very diversity of methods of treatment in common use merely emphasizes the inadequacy of any one as a specific curative agent.

Nor is the therapy notably simplified by proof that the streptococcus is the etiologic agent. This naturally suggests the use of agents designed to stimulate the active production of immune bodies by the patient, or to supply these substances to him by means of human or animal immune serum. The greatest deterrent, from an immunologic standpoint, to this type of reasoning is that the patient, at the height of his disease and in the face of exacerbation and extension, may be highly "immune" according to laboratory standards, although nonetheless clinically unable to arrest extension of his disease. Streptococcus vaccines are usually regarded as of no clinical utility, and ordinary polyvalent streptococcus serums are but seldom employed. The most recently developed agent of this sort is an antitoxin, prepared by the immunization of animals against the specific toxin of the erysipelas streptococcus by a method similar to that used for the preparation of scarlet fever antitoxin. The utility of this antitoxin is uncertain; although some observers express the opinion that it is clinically useful, others feel that evidences of its value fail to take sufficiently into account spontaneous variations of the disease or the occasional beneficial effect of the injection of any protein material. The action of the antitoxin is in decided contrast to other diseases, such as diphtheria and scarlet fever, in which antitoxins are used with decidedly beneficial effect. Erysipelas will continue to extend after the administration of large amounts of antitoxin. In the face of slender evidence of the specific virtues of antitoxin, the clinician must weigh its benefits against the probability of production of unpleasant reactions to horse serum. A good many competent observers presently reserve antitoxin for occasional use in less favorable cases, and especially employ it in infancy where the prognosis is poor, the likelihood of serum reactions is small, and the beneficial effect of nonspecific protein therapy is sometimes suggestively of value.

Human convalescent serum has been employed to some extent, but results have proved in disappointing contrast to those secured in scarlet fever and certain other infections treated with convalescent serum. One cannot, of course, discount the important supportive effect of transfusion in any severe disease, and transfusion of the patient from a recent convalescent supplies not only this general effect, but adds to it the possible benefit of specific immune substances and immune blood cellls.

Purely nonspecific shock therapy is not altogether to be despised; some observers still favor the use of such agents as leukocytic extracts and various other protein materials. Improvement after this type of therapy is not altogether unconvincing, but is not easily explicable. A comparatively recently developed agent for use in many types of streptococcus disease is prontosil, which is an effort at chemotherapy of these infections. This drug has been employed in erysipelas with results that are not completely disappointing. In view of the excellent experimental background of prontosil, and the poor effects of all forms of treatment in erysipelas, this agent

should be more thoroughly tried in an effort to reach final opinion. Toxic effects of the drug are apparently minimal.

Apart from measures designed for direct effect upon the etiologic streptococcus, certain forms of local treatment remain to be mentioned. The chief of these is roentgen therapy. It is difficult to state the precise manner of action of x-ray in the treatment of erysipelas: it may have some direct effect on the invading streptococcus, a stimulating effect on the local tissues, or an entirely nonspecific effect which it produces by means of protein split products. At all events, x-ray undoubtedly deserves to be placed first among the therapeutic agents at present employed in this disease. The dosage and frequency of application of therapy demand the judgment of an experienced roentgenologist. The results of treatment are frequently so prompt and striking as to leave no doubt of its usefulness. Other forms of radiation, especially ultraviolet radiation, have been employed to some extent, but are far less dependable and convincing than is the x-ray.

A variety of local applications have been applied to the lesions of erysipelas, but their effects must largely be judged by the amount of comfort they afford the patient. Especially if the disease arises from an open lesion of the skin, compressing is indicated in an effort to encourage drainage outward from the lesion. When the process is extending over the unbroken skin, it is permissible to apply almost any form of compress which produces comfort. Many patients prefer cold compresses of magnesium sulphate, boric acid, dilute aluminum acetate, etc., while others seem to derive more comfort from hot compresses. Most patients dislike the application of ichthyol or other greasy applications, and the evidence of beneficial effect from these is not convincing. The one who prefers no local treatment at all receives the sympathetic coöperation of the writer. An ingenious suggestion consists of surrounding circumscribed lesions by a line painted with collodion. The collodion, in drying, constricts the superficial lymphatics and impedes the spread of the disease, although not acting as a complete deterrent to its spread. Nothing is lost by this method if the disease is well localized, especially to an extremity, and the spread of infection, and perhaps the absorption of toxin, are in a measure slowed.

Patients with erysipelas may be ill to varying degrees. Their care usually calls for conscientious supervision and careful nursing, adequate attention to nutrition, fluid intake, and elimination. Local measures should be selected with regard to the patient's comfort. X-ray therapy should be instituted early, and may be repeatedly administered by a competent radiologist. The use of prontosil for specific chemotherapy deserves extended but experimental trial, and promises to be useful. Erysipelas antitoxin is not of great value, but may be tried in infancy or with the aged or others where the prognosis is poor.

Farm Population Reduced Slightly During 1936.—A farm population of 31,729,000 persons as of January 1, 1937, was estimated today by the Bureau of Agricultural Economics, compared with 31,809,000 on January 1, 1936. The net loss of eighty thousand persons represents the first decrease in farm population since 1929.

The bureau reported that 1,166,000 persons left farms last year, and that 719,000 moved to farms from villages, towns, and cities. But the net migration off the farms was almost entirely offset by an excess of farm births over deaths: Births were estimated at 716,000, deaths at 349,000.

The number of births on farms last year was the smallest, and the number of deaths the largest, in fifteen years of bureau records. The number of persons moving to farms was the second smallest during this period, and the number of persons moving off farms also was the second smallest.

The bureau said that "with a decrease in farm population there is a reversal of the trend observed during the years 1930-35, when farm population increased every year. Since 1910 there have been several periods when the farm population reported decreases. From 1910 to 1918 there was a decrease which became pronounced during the World War. Following the war, farm population increased until 1921.

"Farm population decreased between 1922 and 1929, and at the beginning of 1930 there were fewer people on farms than there had been at any time since the World War. From 1930 to 1936 farm population increased somewhat. During the past four years the number of people on farms has remained nearly constant, changing by less than 100,000 each year."

The figures reveal that the farm population now is little less than the peak figure of 32,076,960 persons reported for 1910, but much larger than the low of 30,169,000 persons reported for 1930. The bureau said that "the result of all the changes of the past twenty-seven years is that the farm population today is about 1 per cent less than in 1910."

Although the number of persons in the United States has increased by nearly 40 per cent since 1910, the number of persons living on farms today is slightly less than it was in that year. Since 1920, however, more people have moved from farms than to farms during every year except 1932.

The bureau pointed out that the increase in farm population between 1930 and 1935 was due more to the fact that fewer people were moving to towns and cities than to any great "back-to-the-land movement." But with the resumption of urban employment opportunities in recent years, there has been an increase in net migration from farms.

Although the net change in farm population total was slight last year, the bureau reported "pronounced changes in some of the major geographical divisions. In the West North Central and West South Central States, where the drought of 1936 was particularly severe, the decreases reported during 1934 and 1935 were continued during 1936.

"As a result of its losses, the West North Central Division on January 1 this year had fewer people on farms than in 1930. In the other geographic divisions the number of people on farms was greater than in 1930, but in the West South Central and Mountain States the differences were small. If there are further decreases during 1937, farm population in the latter regions will drop below the 1930 level. A number of states in these regions already have fewer people on farms than they had in 1930."

During 1936 there were decreases in the Mountain States, although the fact that the western portion, including Idaho and Arizona, was receiving migrants from the drought states to the east, kept the losses of the entire region at a relatively small figure.

The Middle Atlantic States, including New York, New Jersey, and Pennsylvania, also reported a decrease in farm population, as did the industrialized states of the East North Central group. In both cases the losses were due largely to migration from farms to towns and cities. In the South Atlantic and East South Central States farm population increased primarily because there were many more births than deaths in these states. Farm population in New England remained unchanged.

The patient comes to the physician for advice, consolation, and hope. If he gives none of these, he may be an excellent diagnostician and prognosticator, but he fails somewhat as a physician.

CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section on pages 2, 4 and 6.

CALIFORNIA MEDICAL ASSOCIATION

HOWARD MORROW.....President
WILLIAM W. ROBLEE.....President-Elect
LOWELL S. GOIN.....Speaker
MORTON R. GIBBONS.....Council Chairman
FREDERICK C. WARNSHUIS.....Secretary-Treasurer

THIS MONTH'S TOPICS*

ASSOCIATION ACTIVITIES

1. *Amended Principles of Ethics.*
2. *Endowment Fund.*
3. *Further Comment on American Medical Association Meeting.*
4. *Passing Comments.*
5. *Abstract Executive Committee Minutes July 10, 1937.*
6. *Bouquets.*

DEPARTMENT OF PUBLIC RELATIONS

1. *When Doctors Disagree.*
2. *Forestry Medical Service.*

ASSOCIATION ACTIVITIES

AMENDED PRINCIPLES OF ETHICS

Chapter III, Article 6, of the Principles of Ethics were amended at this American Medical Association session by the addition of the following paragraph.

"The phrase 'free choice of physician' as applied to contract practice, is defined to mean that degree of freedom in choosing a physician which can be exercised under usual conditions of empolyment between patient and physician when no third party has a valid interest or intervenes. The interjection of a third party who has a valid interest or who intervenes does not *per se* cause a contract to be unethical. A 'valid interest' is one whereby law or necessity, a third party is legally responsible either for cost of care or for indemnity. 'Intervention' is the voluntary assumption of partial or full financial responsibility for medical care. Intervention shall not proscribe endeaver by component or constituent medical societies to maintain high quality of services rendered by members serving under approved sickness service agreements between such societies and governmental boards or bureaus and approved by the respective societies."

It is hoped that some day the Judicial Council will write an explanatory comment upon this section in order to clarify its application.

ENDOWMENT FUND

It is learned through the *Texas State Medical Journal* that the Texas Medical Association is the recipient of a $50,000 contribution to its endowment fund from one of its members. New York, Pennsylvania, Massachusetts, Colorado, and a few other states are possessed of funds derived from members and lay individuals. California has but one bequest—the Herzstein Fund.

In previous issues it has been pointed out that our Association should have an Endowment Fund Reserve of many thousand dollars. The interest earnings would enable the Association to expand its activities and serve its members in greater degree and greater effectiveness.

Contributions have been suggested and solicited without results. The tendering of such contributions, the principal to remain intact in perpetuity, serves to establish a lasting memorial and in addition provides for further reaching Association work. In consideration of these benefits, you, member, are again urged to reflect and determine whether your financial position will justify you to tender a substantial subscription. Please help in creating a satisfactory Association Endowment Fund.

FURTHER COMMENT ON A. M. A. MEETING

In the July issue preliminary comment was made upon the Atlantic City meeting of the American Medical Association. It is hoped that every member has read the official minutes as published in the National *Journal*. If not, you are urged to familiarize yourself with these important and far-reaching actions. It is deemed advisable to stress certain major actions in this comment.

Fellowship.—Comment was made as to the desirability of members becoming Fellows. This is of particular interest to California members. Only those who are Fellows can register and participate in the annual session. As the 1938 session is to be held in San Francisco, our members are urged to apply for fellowship affiliation in order that they may attend the 1938 session.

Hospital Staffs.—By resolution the action recorded in 1934 was re-affirmed requiring that approved hospitals limit their staffs to members in good standing in county hospitals.

Hospital Services Defined.—By resolution hospital services under group hospital insurance was specifically defined as being, "limited to the room, bed, board, and nursing facilities ordinarily provided by hospitals, routine drugs and the routine services of internes only when acting under the direction of the attending physician."

"Except as stated above the contract should not include the services of physicians either general or special. The term physician shall be understood to include all licensed practitioners holding the degree of doctor of medicine and all others who assume on their own account to interpret laboratory findings in terms of disease and diagnosis or to administer or direct treatment." This action gives national endorsement to the action recorded by the California Medical Association upon this question.

Federal Medical Services.—In view of the press and other comments made upon the New York resolution it is deemed quite important that members be acquainted with the final action recorded in the following report:

THE REPORT OF REFERENCE COMMITTEE ON EXECUTIVE SESSION

The Reference Committee has carefully considered the resolutions introduced by the New York delegation and has held hearings at which the details of the principles and proposals were freely discussed.

The Board of Trustees has already reported to this House of Delegates its considered opinion pertaining to the reorganization, in one consolidated department, of the activities of the Federal Government having to do with the promotion of health and the prevention of diseases. Copies of this statement, as printed in *The Journal* and in the Handbook of the House of Delegates, page 107, were transmitted to the President of the United States and to others in official position in Washington, and the attention of constituent state medical associations was especially called to the action of the Board:

"Recognizing that committees of the Senate and of the House of Representatives of the United States Government and a special committee appointed by the President are at this time concerning themselves with the reorganization of government activities with a view to greater efficiency and economy, and recognizing also that the President, in his

* All articles listed under the caption, "This Month's Topics," have been written and sent to the Editor by the Association Secretary, Dr. Frederick C. Warnshuis.

opening address to Congress, indicated that he would shortly present to the Congress recommendations for such reorganization of governmental activities in the executive branches, and recognizing moreover the great desirability that all activities of the Federal Government having to do with the promotion of health and the prevention of disease might with advantage be consolidated in one department and under one head, the Board of Trustees of the American Medical Association would recommend that such health activities as now exist be so consolidated in a single department which would not, however, be subservient to any charitable, conservatory or other governmental interest. It has been repeatedly said that public work is the first problem of the state. It is the opinion of the Board of Trustees that health activities of the government, except those concerned with the military establishments, should not be subservient to any other departmental interests. This organization and consolidation of medical departments need not under present circumstances involve any expansion or extension of governmental health activities but should serve actually to consolidate and thus to eliminate such duplications as exist. It is also the view of the Board of Trustees that the supervision and direction of such medical or health department should be in the hands of a competently trained physician, experienced in executive administration."

Since the House of Delegates during this session has already approved this action of the Board of Trustees your Reference Committee deems it unnecessary to submit for your consideration that portion of resolutions which deals with this subject.

Your Reference Committee recognizes that certain principles stated in the resolutions presented by the New York delegation have been considered by the House of Delegates on previous occasions and are matters of record. These include, for example, the recognition of the primary importance of public health, the opposition to compulsory sickness insurance, and the separation of the problem of economic need and the distribution of medical service.

The extension of medical service to the indigent has been given careful consideration by the Board of Trustees as reported on page 108 of the Handbook of the House of Delegates, 1937, and was approved by this House during its session June 8, 1937:

"In the past, the medical profession has always been willing to give of its utmost for the care of those unable to pay. The available evidence indicates that today throughout the United States the indigent are being given a high quality of medical care and medical service. Nevertheless, the advances of medical science have created situations in which a group of the population neither wholly indigent nor competent financially find themselves under some circumstances unable to meet the costs of unusual medical procedures. The Board of Trustees of the American Medical Association points out the willingness of the medical profession to do its utmost today, as in the past, to provide adequate medical service for all those unable to pay either in whole or in part. Members of the medical profession, locally and in the various states, are ready and willing to consider with other agencies ways and means of meeting the problems of providing medical service and diagnostic laboratory facilities for all requiring such service and not able to meet the full cost thereof. These are problems for local and state consideration primarily rather than problems of federal responsibility. The willingness of the medical profession to adjust its services so as to provide adequate medical care for all the people does not constitute in any sense of the word an endorsement of health insurance, either voluntary or compulsory, as a means of meeting the situation."

The American Medical Association is cognizant of the medical needs of the people of the United States; it is genuinely interested in all plans for providing and distributing medical care. The records, reports, source material, and experience of the Association are of great value. They are at the service of agencies contemplating the development and operation of plans for medical care. These factual data, source material, and experience are readily available for use in promoting and protecting the health of the American people.

Your reference committee recommends that the bureaus, councils, and committees of the Association continue their studies of the need for and the methods of distributing medical care to the end that the American Medical Association shall continue to do everything possible to promote and protect the health of the American people.

The American Medical Association reaffirms its willingness, on receipt of direct request, to coöperate with any governmental or other qualified agency, and to make available the information, observations and results of investigation together with any facilities of the Association.

THOMAS MCGOLDRICK, New York
J. H. CANNON, South Carolina
E. H. CARY, Texas
E. F. CODY, Massachusetts
JOHN H. FITZGIBBON, Oregon.

Senator J. Hamilton Lewis address.—This address is published in full on page 2,221 of the June 26 issue of the *Journal of the American Medical Association.* In the light of subsequent events and investigations it is difficult to appraise the Senator's statements or to indicate just what is being proposed and promoted by certain parties active in the national capitol. The remarks may well be pondered over. American Medical Association officials are maintaining close contact and vigilance.

PASSING COMMENTS

There is a potential reservoir of medical knowledge and service in every community which can be actuated to serve public health needs.—Vaughan.

* * *

Under the caption of "Doorstep Baby," the editor of the *Indiana State Medical Journal* fixes the parentage of a certain quest that was sought to be attained at the recent American Medical Association meeting.

* * *

Maryland and Florida State Medical organizations have gone on record as firm opponents to the suggestions made by Senator J. Hamilton Lewis.

* * *

If you are not a *Fellow* of the American Medical Association, it is suggested that you apply for Fellowship in order that you may register and attend the 1938 meeting in San Francisco. Only Fellows may register and obtain a badge. Badge must be shown to gain admission to all meetings and exhibits. Do no confuse membership with fellowship. If you are paying subscription and receiving the *Journal* of the American Medical Association be sure and ascertain if you have ever applied for Fellowship and have a Fellowship card. That card is necessary to register.

* * *

The Sixty-seventh Annual Session of the California Medical Association will be held in the Huntington Hotel in Pasadena, May 9–12, 1938.

* * *

Announcement will be made in the next issue of the program, that will govern the annual conference of county secretaries, standing committees, officers and councilors to be held in October.

* * *

Wanted! Five hundred members to send in $100 each to create the initial fund for an Association Endowment Fund. The Fund will be kept intact in perpetuity. The earnings will be used to expand Association work. Will you send your contribution this month?

* * *

Elsewhere in this issue there will be found a list of bills passed at the last Legislature, of medical and health interest that died by reason of the Governor's failure to sign them.

* * *

Time spent in well planned post-graduate work produces dividends in increased income. You will do well to arrange to spend this time at one or more of the post-graduate courses offered by our medical colleges.

* * *

If you wish to present a paper at the Pasadena meeting write to the Section Secretary applying for a place. Send topic and a brief résumé.

* * *

When in San Francisco drop in at your Association's headquarters. You will be most welcome and it will be a pleasure to extend to you every possible assistance. This is a personal invitation to every member.

* * *

A copy of each issue of our official journal is being sent to the officers and delegates of the American Medical Association. This is for the purpose of acquainting those who represent sister states with the work and problems of this Association.

* * *

What are you doing to gain public favor and good will for scientific medicine and its practitioners?

ABSTRACT EXECUTIVE COMMITTEE MINUTES, JULY 10, 1937

1. Executive Committee of Council met in San Francisco at 9:00 a. m., July 10, 1937. Present: Doctors Schaupp, Morrow, Roblee, Pallette, Dukes, Kress, Secretary Warnshuis, Counsel Peart. Absent Doctors Gibbons and Goin.

2. Annual meeting date.—The date for the 1938 Annual Session in Pasadena was fixed as May 9–12.

3. Draft for the program for the October Conference of County Secretaries, Standing Committees, Officers, and Councilors was approved.

4. In accordance with an established policy, the endorsement requested of the objects, purposes, and organization of the American Society for the Control of Venereal Diseases was withheld.

5. Medico-Economic Survey.—A detailed discussion was had on plans, ways, and means for the publication and distribution of the final report on the Medico-Economic Survey. Plans for publication were approved. Sufficient copies will be printed to supply one copy for each Association member and for Federal and State representatives and desired copies requested by the Projects Director of the Works Progress Administration, Dr. J. B. Sharp.

6. Secretary was directed to secure and file in the Association office the files and records of the Committee of Five.

7. Adjourned at 1:15 p. m.

F. C. Warnshuis, *Secretary.*

BOUQUETS

Sometimes it is advisable to impart what others say about you and to record their appraisals. California and Western Medicine is being sent to the members of the American Medical Association House of Delegates. The following are extracts of letters of acknowledgment:

"I have greatly appreciated the courtesy of the California Medical Association in sending me regularly its official publication. I have enjoyed it greatly and have profited by reading it. I appreciate being continued on the mailing list.—Hilton S. Read, Chairman of Welfare Committee, The Medical Society of New Jersey."

"I think you have a splendid publication. It has given me a better insight into the problems of medicine in the western section of the United States. I am very glad to know that I am to be continued on your mailing list. With every good wish for the continued success of your Association and to you personally, as Secretary, I am with kindest regards, J. Allen Jackson, Superintendent, Danville State Hospital, Danville, Pennsylvania."

"Many thanks for your letter of July 1. I read your *Journal* when it comes with pleasure and profit and am grateful.—Frederic E. Sondern, Past President New York State Association."

"In thanking you and through you the Council for this courtesy, may I take this opportunity of saying that California and Western Medicine has been read during the past two years with continued interest in its scientific subject matter and with an increased understanding of the problems and policies of the California Medical Association.—Virgil E. Simpson, Louisville, Kentucky."

"I enjoy and am interested in reading California and Western Medicine and thank the Council for continuing my name on the mailing list.—Olin H. Weaver, Macon, Georgia."

"Many thanks for your letter of July 1 regarding the distribution of your publication, California and Western Medicine. We enjoy your publication very much indeed, and certainly appreciate being kept on your mailing list.—Stanley H. Osborn, State Department of Health, Hartford, Connecticut."

"This is a very fine publication, and its statement respecting our mutual problems in the field of medical economics are of particular value to the Board of Trustees.—Ralph A. Fenton, Trustee, American Medical Association."

"I have enjoyed reading California and Western Medicine very much. Further more, as soon as I finish with it the magazine is placed in the reading room of the internes at the Springfield Hospital, where I know it is used to good advantage.—John M. Birnie, Springfield, Massachusetts."

"I have pleasured and profited by reading the scientific articles and your legislative problems and programs. I have fancied that you have had all and more of the problems of medicine than have any of the other states in the Union and hence feel that getting your reports, I have gotten all the others. The scientific articles are certainly equal to any state journal which I have known and I shall be pleased to receive it for another year.—C. C. Mechling, Pittsburgh, Pennsylvania."

"I beg to acknowledge your letter of July 1, 1937, stating that you would continue mailing your official publication for the oncoming year. I wish to thank you for the numbers that have been received in the past, and also assure you of my personal pleasure and edification in perusing same. I think it is a great advantage to have the intimate contact with your state's activities which are outstanding. —J. Gurney Taylor, Milwaukee, Wisconsin."

"Your letter addressed to the officers and delegates of the American Medical Association regarding California and Western Medicine reminds me that I should have heretofore acknowledged the receipt of this excellent *Journal* and expressed my interest in the viewpoints which appear in its departments. I am afraid I have not read every department in each issue. In view of your suggestion I will try to do so. I am sure I shall be rewarded.—Charles H. Goodrich, President, Medical Society of the State of New York."

"Thank you very much for California and Western Medicine. It has been very helpful in getting a better understanding of medical problems presenting in California. —R. L. Sensenich, South Bend, Indiana."

"I do get a great deal of information from its pages and wish to congratulate the California Medical Association on having such an efficient secretary and editor.—Louis J. Hirschman, Detroit, Michigan."

"I read every word of the California *Journal*. I much admire the publication, it is not surpassed by any medical journal that comes to us in our exchange arrangement.—Charles J. Whalen, Editor, Illinois State *Journal*."

"As Chairman of the Editorial Board of *Minnesota Medicine*, I am profoundly interested in California and Western Medicine perhaps a little more so than as a delegate of the American Medical Association. I shall continue to welcome its coming.

"The editorial columns are always of interest. The activities of your Association and the comments thereon are worthy of careful reading and thought. The make-up and general appearance of the *Journal* show a great deal of thoughtful care on the part of those responsible.—J. T. Christison, St. Paul, Minnesota."

"I have been much interested in looking over the articles from time to time which appear in CALIFORNIA AND WESTERN MEDICINE, especially the ones that have described your difficulties pertaining to California. I appreciate receiving the *Journal* very much.—H. B. Everett, Memphis, Tennessee."

" " "

"I am just in receipt of your very kind favor in which you say the CALIFORNIA AND WESTERN MEDICINE journal will continue to come for another year. May I say that I greatly enjoy reading your State *Journal*. I consider it the very best State *Journal* I have ever seen and I am sure doctors living without the bounds of your State, I mean those who have been privileged to read the *Journal*, have been disabused if they ever entertained an idea that your State Association has ever encouraged or fostered anything but the highest ideals of medical ethics and practice. I know that you have more problems with which to deal than most any other state, but I feel quite sure that the medical profession of California will be able to solve its problems.—John W. Burns, Cuero, Texas."

" " "

"I have found time to read your *Journal* regularly and appreciate it as much as any other publication that comes across my desk. I find that it is always full of thought producing suggestions which are valuable to American medicine and to the American people.—A. T. McCormack, Secretary, Kentucky State Medical Association."

" " "

"I have enjoyed reading the various issues and feel that they have given me a better understanding of the problems in California and throughout the country.—John H Fitzgibbon, Portland, Oregon."

C. M. A. DEPARTMENT OF PUBLIC RELATIONS†

WHEN DOCTORS DISAGREE*

There are indications that the United States is moving slowly toward federalized medicine. But that does not mean that the United States is going to have it. American democracy is still a long way from subjecting its citizens to such compulsion and control.

Most recently the Medical Society of the State of New York passed a resolution which in effect favored "socialized medicine" and medical care for the "financially indigent" provided by the Government and at its expense. This resolution was passed on to the American Medical Association's meeting for action. But the larger and more conservative parent body dodged the issue, merely affirming its general willingness to coöperate with the Government at Washington, while retaining an attitude of austere and dignified passivity toward the whole matter. It did recommend the setting up of a national department of health under which all governmental health agencies could be centered.

The national medical organization also reaffirmed its stand against health insurance, because it does not think that kind of insurance adequate. This attitude may have been confirmed and influenced by the recent experience of British Columbia, where an experiment with health insurance is proving highly troublesome. When the Province was unable to put into operation a bill establishing health insurance because of opposition mainly led by doctors, the Premier called for a plebiscite. He demanded a clear mandate on a comprehensive health insurance plan progressively applied. The returns from that balloting showed a majority favoring health insurance, but that majority fell far short of the mandate desired by the Government. It rather served to emphasize the strong minority that might make such sumptuary legislation unenforceable. The Government of British Columbia is in a dilemma again.

Last week, also, Senator Lewis of Illinois warmly invited the medical profession to join President Roosevelt in a move to effect federalized medicine. Scarcely was the sonorous and persuasive voice of the senior Senator from Illinois stilled when a spokesman at the White House hurriedly denied that the President had any specific program. Certainly the experience of British Columbia with it model health insurance law and the doctors' unwillingness to embark on a program of federalized medicine should give pause to anyone who has thoughts of experimenting along this line in America.

† The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. Charles A. Dukes of Oakland is the chairman, and Dr. F. C. Warnshuis is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. F. C. Warnshuis, Room 2004, Four Fifty Sutter Street, San Francisco.

* From the *Christian Science Monitor*, June 18, 1937.

FORESTRY MEDICAL SERVICE

Attention of the members is drawn to the fact that the "Forestry Medical Service of the California Medical Association" is the only and official organization endorsed by this Association.

This "Service" was organized at the request of Federal and State Forestry Departments and the California Chamber of Commerce for the purpose of rendering emergency medical care in the event of major forest fires. It is so recognized by these organizations.

Regional Directors are: Karl L. Schaupp, Central Coast District; Junius B. Harris, Sacramento Valley District; Irving S. Wills, Southern California District; W. C. Shipley, North Coast District; Harry E. Kaplan, Central Valley District, and Mr. William Sparling, San Joaquin Valley District.

Membership is restricted to county medical society members.

This announcement is made so that members may not be confused by the representations that may be made by others.

COMPONENT COUNTY MEDICAL SOCIETIES

CONTRA COSTA COUNTY

At a special meeting held Wednesday evening May 12, 1937, in Richmond, the Contra Costa County Medical Society unanimously voted to petition the Insurance Association of Approved Hospitals to extend its activities to Contra Costa County. In adopting this resolution the Society also went on record as favoring a plan whereby the Contra Costa area would be represented, in an advisory capacity at least, in the administration of the Association.

The following Contra Costa County hospitals were declared "approved": Richmond Cottage Hospital, Martinez Community Hospital, Concord Hospital, and Antioch Hospital. Should the above petition be favorably acted upon by the Association, the Medical Society recommends that the above named hospitals be favorably considered for participation in the Association.

Also unanimously adopted was a resolution that the Contra Costa County Medical Society apply for membership in the Insurance Association of Approved Hospitals when and if the Association extends its activities into Contra Costa County.

This petition, together with the list of approved hospitals and the application for membership in the Association has been sent to the secretary of the Association for consideration by the Board of Directors at its meeting Friday evening, May 14.

Letters have been sent to the four hospitals mentioned informing them of these actions taken by the Society.

The following members of the Contra Costa County Medical Society were present at the meeting: Clara H. Spalding, President; Walter L. Taylor, Vice-President; Thomas J. Dozier, Secretary-Treasurer; U. S. Abbott, Kaho Daily, M. L. Fernandez, E. B. Fitzpatrick, Harry G. Ford, L. H. Fraser, L. A. Hedges, William A. Powell, J. B. Spalding, and Sol. N. Weil.

Also present were: Dr. Daniel Crosby, President, Insurance Association of Approved Hospitals; Mr. George U. Wood, Second Vice-President, Insurance Association of Approved Hospitals and Superintendent of Peralta Hospital; Mr. Philo Nelson, General Manager of the Association, and Mr. Jack Rafter, Manager of Richmond Cottage Hospital.

THOMAS J. DOZIER, *Secretary.*

MARIN COUNTY

The Marin County Medical Society held its monthly meeting on June 24, 1937, at the Marin Golf and Country Club. It was a well attended meeting, and Dr. Philip Gilman of Stanford gave a very interesting talk on *Thyroid Diseases.*

CARL W. CLARK, *Secretary.*

SAN BERNARDINO COUNTY

The joint meeting of the Tri-County Dental Society and the San Bernardino County Medical Society was held at the California Hotel in San Bernardino on Tuesday, June 1, 1937. Dinner was served at 8:00 p. m. with about sixty members and guests present.

The following applications for membership were favorably voted on: Dr. V. G. Slater, San Bernardino; Dr. E. H. Lum, Claremont, and Dr. Jacob Janzen, Loma Linda.

Nominations for officers for 1937–1938 were called for. There being no further nominations it was moved and seconded that the officers nominated by the Board of Directors stand approved, as follows: President, Dr. Delbert Williams; First Vice-President, Dr. V. M. Pinkley; Second Vice-President, Dr. Floyd W. Gardner; Secretary-Treasurer, Dr. Arthur E. Varden; Delegates, Dr. A. D. Neubert, Dr. Walter Cherry, and Dr. X. Olsen; Alternates, Dr. A. L. Weber, Dr. T. I. Zirkle, and Dr. R. C. Nichols.

The paper of the evening was *Physical Diagnosis, Its Relation to Dentistry,* by William Nance Anderson, M. D.

Following the discussion, the President, Dr. D. C. Mock, again thanked the members of the Dental Society for their attendance, and expressed a wish on behalf of our Society that more joint meetings be held.

ARTHUR E. VARDEN, *Secretary.*

SAN DIEGO COUNTY

On June 15, Dr. Frank H. Krusen, Director of Physical Therapy, Mayo Clinic, spoke to the San Diego County Medical Society. His subject was *Present Status of Physical Therapy.*

Applications for membership were received from the following:

Francis M. Findlay, Harvard; Gerald F. Banks, University of California; William C. Satterlee, College Medical Evangelists; Berenice I. Stone, University of Wisconsin; Frank C. Konrad, Harvard; E. H. Calvert, Ohio; Richard T. Hamer, College Medical Evangelists; Anton S. Yuskis, Rush; Kerwin W. Kinard, Pennsylvania; G. F. Harris, University of Southern California, and James B. Couche, Toronto.

F. E. TOOMEY, *Chairman.*

SOLANO COUNTY

Solano County Medical Society was host to a Tri-County Medical Society meeting held at the Vallejo Golf Club on Saturday, July 10, 1937. Guests were the Napa County Medical Society and the Sonoma County Medical Society. A number of doctors played golf in the afternoon.

Doctor Perkins, President of the Solano County Medical Society, turned the meeting over to Dr. Ream Leachman, after a dinner served at the Golf Club at 7:00 p. m. Doctor Leachman introduced the speakers and acted as Master of Ceremonies for the evening.

Mr. Hartley Peart of San Francisco, general counsel for the California Medical Association, spoke of *Queer Quirks* of the Law as applied to the practice of medicine. He was followed by the associate counsel, Mr. Baraty.

Dr. Junius Harris of Secramento then told of the recent session of the Legislature and referred to bills interesting us as doctors, and particularly the one vetoed by the Governor which dealt with fees as "Expert Witness." He also referred to current comments on Socialized Medicine revealed at the recent meeting of the American Medical Association.

Dr. James Eaves of San Francisco spoke on the *Tri-Counties in Connection With Industrial Medicine,* suggested a "panel" of local doctors to take care of industrial cases and also consultations pertaining to the same.

Dr. James Dillon of San Francisco then spoke on *Present Trends in Urology,* and referred to the use of prontosil and sulfanilamide, also ammonium citrate and mandellic acid in treatment of infections of the urinary tract. His remarks were then discussed by Doctor Marshall, who is head of the Urological Department of the Mare Island Hospital. Doctor Marshall recounted his experience with sulfanilamide and said it was extremely useful in the treatment of gonorrhea, sometimes reducing treatment to a period of one to three weeks. He said he believed there may be bad effects from its use, and that it should be used only under the direct supervision of a doctor. He cited patients in whom the red cells were profoundly reduced and the whites correspondingly elevated. General discussion followed.

Dr. Henry Rogers, Councilor of our District for the California Medical Association, then made some interesting remarks concerning the California Medical Association.

There were thirty-three present, including doctors from Petaluma, Santa Rosa, Pasadena, Napa, Sonoma, Sacramento, Fairfield, Napa State Hospital, Benicia, Mare Island Hospital, San Francisco, and Vallejo.

JOHN W. GREEN, *Secretary.*

VENTURA COUNTY

The regular monthly meeting of the Ventura County Medical Society was held at the Saticoy Country Club on Tuesday, May 11, 1937.

Dr. C. G. Baumgartner gave an illustrated lecture on the *Common Surgical Emergencies of the Abdomen.* He briefly discussed appendicitis in children, peptic duodenal ulcers, and intestinal obstructions.

A brief report of the Del Monte meeting was given by the delegate.

Doctor Shore moved and Doctor Clark seconded that a letter offering our congratulations and coöperation be sent to the new Councilor of our District, Doctor Packard of Bakersfield. Motion carried.

Doctor Coffey discussed the testing of school children for tuberculosis. Various members seemed to feel that since everyone else connected with this movement received some remuneration that the medical profession, with the exception of the school physicians, should receive some compensation. The opinion was expressed that this movement would be broadened and the burden on the individual member's time would be increased unless we took some definite stand on this question. No final action was taken.

A. A. MORRISON, *Secretary.*

CHANGES IN MEMBERSHIP

New Members (26)

Alameda County.—Franklin C. Cassidy, James T. Harkness, Hewitt H. Robinson, Paul C. Samson.

Humboldt County.—John S. Chain, Samuel P. Burre.

Kern County.—Joseph D. Johnson, J. Headen Inman.

Kings County.—Harold A. Hinckley.

Los Angeles County.—Isabel DeY. Brown, George M. Campbell, O. H. Hanson, Gurn T. Stout.

Mendocino-Lake County.—Holden E. Brink, L. J. Callahan, Otto L. Gericke.

Monterey County.—T. D. Englehorn, John H. Gratiot.

Riverside County.—Frederic D. Ullrich, Leonard D. Wood.

Sacramento County.—William F. Harding, P. L. Koch, Milton Sarkisian.

San Francisco County.—Arthur Horace Rice.

Santa Barbara County.—Robert V. Carter, Yoshitaka Nakano.

Transferred (4)

Benjamin L. Bryant, from Santa Clara County to Los Angeles County.

C. E. Burk, from San Bernardino County to Washington Medical Association.

J. H. Mallery, from San Diego County to Oregon State Medical Association.

John C. Sharp, from Santa Clara County to Monterey County.

Resigned (3)

Bertha Dyment, from Santa Clara County.

Robert Hector, from Alameda County.

George P. Waller, from Los Angeles County.

In Memoriam

Ball, Charles Dexter. Died at Santa Ana, June 16, 1937, age 78. Graduate of the University of Bishop College Faculty of Medicine, Montreal, 1884. Licensed in California in 1887. Doctor Ball was a retired member of the Orange County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✝

Brown, Harry Ver Brike. Died at Glendale, June 26, 1937, age 64. Graduate of Bennett College of Eclectic Medicine and Surgery, Chicago, 1902. Licensed in California in 1907. Doctor Brown was a member of the Los Angeles County Medical Association, the California Medical Associatnon, and a Fellow of the American Medical Association.

✝

Coe, Harry Carson. Died at Oakland, June 11, 1937, age 46. Graduate of Stanford University School of Medicine, San Francisco, 1922, and licensed in California the same year. Doctor Coe was a member of the Alameda County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✝

Farmer, Lydia Etta. Died at Sacramento, July 1, 1937, age 64. Graduate of College of Physicians and Surgeons, Keokuk, Iowa, 1893, and licensed in California the same year. Doctor Farmer was a retired member of the Sacramento Society for Medical Improvement, the California Medical Association, and the American Medical Association.

✝

Gray, Frank Pierce. Died at San Francisco, June 28, 1937, age 84. Graduate of Cooper Medical College, San Francisco, 1895, and licensed in California the same year. Doctor Gray was a retired member of the San Francisco County Medical Society, the California Medical Association, and the American Medical Association.

✝

Smith, Munford. Died at Sea, June 28, 1937, age 45. Graduate of the University of Maryland School of Medicine and College of Physicians and Surgeons, Baltimore, 1919. Licensed in California in 1920. Doctor Smith was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

OBITUARIES

Newbern Nuckolls Brown

1883-1937

Whereas, It has pleased the Infinite to remove from our professional ranks and from the midst of this community, by an untimely death, our esteemed professional co-laborer and friend, N. N. Brown, M. D., who has for the past, more than a quarter of a century, occupied a prominent position in the medical profession of Kern County, California, and an enviable position in the hearts of the people of this community; therefore, be it

Resolved, That in the death of N. N. Brown, M. D., we have sustained the loss of an able friend whose fellowship it was an honor and a pleasure to enjoy; that we bear willing testimony to his many amiable virtues and to his unquestioned professional ability and probity and to a life devoted to the benefit of his fellowmen; that we offer to his bereaved family and his host of mourning friends, over whom sorrow has hung her black mantle, our heartfelt condolence and pray that the Infinite One will bring speedy relief to their sorrowed and burdened hearts; and be it further

Resolved, That a copy of these resolutions, properly engrossed, be presented to the family of our deceased friend; that a copy thereof be given to our local press; that a copy be sent to our State Association.

✝

Munford Smith

1892-1937

Munford Smith, age 45, died suddenly on June 28, 1937, on board the *M. S. Canada,* en route for England via the Panama Canal. From radio advices the cause of death was some form of cerebral vascular accident.

Doctor Smith, a graduate of the University of Maryland Medical School, had been in Los Angeles since 1919. A year later he became assistant resident physician at the Barlow Sanatorium, and had continuously been connected with the Sanatorium from that time until his death. For the past ten years he had held the position of medical director. In this capacity, he has been responsible for the care of some two thousand patients who have passed through the institution in the past ten years.

In the last few years he had been much interested in the effect of the inhalation of dust and noxious gases—a subject in which he was a recognized authority. He was a member of the Los Angeles County Medical Association, a Fellow of the American Medical Association, and a Fellow of the American College of Physicians. National recognition of his ability is expressed by his membership on the Board of Directors of the National Tuberculosis Association and he had recently completed a term as president of the American Sanatorium Association. Active and interested in the larger aspects of public health as applied in particular to his specialty, he had served on many important committees for the betterment of the charitable care of pulmonary tuberculosis.

Doctor Smith was an unusually able clinician with a wide experience in diseases of the chest. He possessed rare judgment in the selection of various methods of treatment for patients suffering from pulmonary tuberculosis, and it is due chiefly to his efforts that successful collapse therapy has been widely, but judicially, employed at the Barlow Sanatorium. His kindliness of spirit and keen interest in people and their personal as well as medical problems made his particularly successful in the conduct of cases of chronic illness. To Dr. Munford Smith's thoughtful and intelligent advice, there are hundreds of individuals in Southern California who now owe their lives and their well-being.

✝

Harry V. Brown

1873-1937

Doctor Harry V. Brown, former vice-president of the Los Angeles County Medical Association and former president of the Glendale Branch, and for many years a Councilor and a member of the Association, passed away on Friday, June 25.

Doctor Brown was sixty-two years of age. He was born in Chariton, Iowa, and was graduated from Drake University, Des Moines, later taking post-graduate studies at Harvard and at Stanford Universities.

He came to California in 1907, first practicing in Los Angeles and moving to Glendale twenty years ago, where in addition to his professional activities, he at once identified himself with the civic life of the community.

Doctor Brown, for ten years, was a member of the board of trustees of the Glendale Union High School District, acting as president for one term, and also served as a member of the board of trustees of the Glendale Public Library.

His passing causes much sorrow among his host of friends in the Association.

THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION†

News Letter

Dear Auxiliary Members:

You are all interested, I know, in some of the more intimate phases of the recent convention held at Atlantic City. From nothing could you obtain a more graphic picture of the friendliness and good fellowship that exists among Auxiliary members than from the charming speech of welcome by Mrs. George A. Rogers of East Orange, New Jersey, and the sincere and gracious reply of Mrs. Hobart Rogers of Oakland, our President. I am happy to have been able to print for you excerpts of these addresses.

Yours sincerely.

MRS. FRED H. ZUMWALT.

* * *

ADDRESS OF WELCOME

Once again Auxiliary members have gathered together from all parts of the United States to compare experiences, report results and enjoy a holiday.

It is my privilege to greet you all in the name of New Jersey and her neighbors, Pennslyvania, and Delaware. Though so many here are strangers, in that we have never met before, yet the bond of our common interest is strong and we hold out the hand of fellowship to welcome you as our friends.

While Auxiliary business is of primary importance during this convention, still we trust that you will all find time and opportunity to enjoy the many pleasures which Atlantic City has to offer.

It is our hope, that when the time comes to say "Goodbye," you will leave us with regret but looking forward to the day when we shall meet again.

Once more I offer you a most hearty welcome.

MRS. GEORGE A. ROGERS,
East Orange, N. J.

* * *

RESPONSE TO THE ADDRESS OF WELCOME

It is my lot to live where, from my windows, I may view the Golden Gate and the blue Pacific beyond. Within a few days I have passed through the canyons of the Rockies, crossed the vast and somber western plains, the sheltered farm lands of the Middle West and on through the industrial communities of the East. I am happy and proud to have made this journey. I mention it now only that it symbolizes our geographic separation from one another and perhaps, therefore, justifies my presumption in speaking on behalf of the Woman's Auxiliary to the American Medical Association in responding to the welcome so graciously expressed by Mrs. Rogers. We realize that, as we sit down to consider our mutual problems, we must overcome all these forces which tend to divide us. We must develop our hopes and aspirations in an atmosphere of friendliness and good cheer. This atmosphere you have already created for us.

To Mrs. Rogers, and to the ladies of the New Jersey, Pennsylvania, and Delaware Auxiliaries who have given so much in time, in effort, and in sacrifice for our comfort and happiness in this convention, may we express our sincere appreciation and our thanks. Especially do we thank you that you are making us feel not as strangers from afar but as neighbors and friends; not as poor and distant relations but as members of your own household. We shall enjoy your hospitality in the fullest measure, and we shall look forward to the day when we may open our doors to you.

MRS. HOBART ROGERS,
Oakland, California.

† As county auxiliaries of the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Fred Zumwalt, chairman of the Publicity and Publications Committee, 3880 Clay Street, San Francisco. Brief reports of county auxiliary meetings will be welcomed by Mrs. Zumwalt and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the Editor to allocate two pages in every issue to Woman's Auxiliary notes.

Component County Auxiliaries

Marin County

The election of officers was held at the meeting of the Women's Auxiliary to the Marin County Medical Society on Thursday evening, June 24, at the Marin Golf and Country Club. The following were elected for the coming year: President, Mrs. Thomas Gocher; Vice-President, Mrs. Roy R. Robertson; Secretary and Publicity Editor, Mrs. R. B. Hartman; Treasurer, Mrs. Homer Marston.

Reports of the State Convention, held at Del Monte in May, were given by members who had attended. Word of the honor accorded Marin County in the election of Mrs. H. O. Hund as treasurer of the State Auxiliary for the coming year was enthusiastically received.

MRS. ROY R. ROBERTSON, *Secretary.*

*

Sacramento County

The Woman's Auxiliary to the Sacramento Medical Society enjoyed a picnic luncheon and social afternoon on the fifteenth of June at the beautiful and spacious home of Dr. and Mrs. J. B. Harris.

Mr. Earl Barnett gave a talk on *Domestic Architecture of Foreign Countries* and Madame Iki entertained with songs.

During the summer months the members of the Public Health Committee are giving three mornings a week at the Tuberculosis Clinic, and will also assist the Red Cross at the State Fair in September.

The Auxiliary, through Mrs. William Van Den Berg, President, is one of the organizations sponsoring the Sacramento music series.

MRS. H. R. JOHNSON, *Publicity Chairman.*

Fifteenth Annual Convention of Woman's Auxiliary to the American Medical Association

Atlantic City, June 6 to 11, 1937

Notes

Dear Auxiliary Members:

The first general meeting was devoted to the President's report and the reports of the chairmen of standing committees. Mrs. Fitzgerald gave a résumé of the growth and expansion of the National Auxiliary. She states that no new and outstanding project had been undertaken this year, and that for the sake of unity and continuity, in our organization she had continued the aims and policies of her predecessors. She emphasized the fact that we are a secondary organization banded together to work under the direction of the parent group. Should we proceed independently of that body, we cease to be an auxiliary and violate the principles on which we are founded.

The reports of the chairmen of the various departments were very gratifying and showed substantial increases in numbers, activities, and usefulness. Each spoke especially of the fine coöperation of the various State Auxiliaries in carrying out the National program. Since to me the convention meant an intensive course of training for the coming year's work, I shall mention some of the helpful suggestions I gleaned from the reports.

Organization.—Mrs. David S. Long reported a substantial increase in counties organized. We now have organizations in thirty-seven states and the District of Columbia. New Hampshire, one of the states most recently organized, now has auxiliaries in all counties. Texas has forty-six counties organized with a total membership of 1,806. New York State came to the front with an increase in membership of 399½ per cent.

Looking toward the goal "Every County in Your State Organized," Mrs. Long has stressed four outstanding points:

1. Include in your state committee each county chairman of membership and organization. In unorganized counties, ask the State Advisory Council to petition the County Medical Society to name a county organizer.

2. Urge county chairmen to perfect their county organization by:

(*a*) Making special efforts to reinstate delinquent members.

(*b*) Interviewing every eligible doctor's wife.

(*c*) Conducting at least one meeting a year on aims and purposes of a medical auxiliary.

(*d*) Inviting doctors' wives from neighboring counties to your meetings.

3. Having your county chairman entirely familiar with the mechanics of organizing an auxiliary.

4. Being sure the county you are organizing really wants an auxiliary, as it takes enthusiasm to build a successful and permanent organization.

Hygiea.—Mrs. James D. Lester reported the largest number of *Hygiea* subscriptions in the history of the auxiliary. As you know, one of our National Past Presidents, Mrs. John O. McReynolds of Dallas, Texas, offered three cash prizes of $50 each to the county securing the most subscriptions to *Hygiea.*

Public Relations.—The activities of this committee under the chairmanship of Mrs. J. Bonar White have been far-reaching. With the coöperation of the state units it has been able to promote health education in various organizations, such as Parent Teacher Associations, Pre-School Associations, Federated Women's Clubs, Health and Recreation Committees of Young Women's Christian Associations, Girl Scout and Camp Fire Girls' Councils, Farm Women's Clubs and many others. It has encouraged Health Essay Contests, Public Health Days, Health Institutes, Health Poster Contests, and many other projects to promote a better understanding between the medical profession and the lay public. A most important objective of an auxiliary is to direct public thinking and action to channels mutually advantageous to the profession and the citizens generally.

Program.—Mrs. V. E. Holcombe reported that the program of State Auxiliaries has been varied according to individual needs. The key note of each, however, has been health education.

Following the reading of these reports our new National President, Mrs. Augustus S. Kech of Altoon, Pennsylvania, was presented. She is a dynamic person of great capacity and charm. She is a natural leader and she speaks exceedingly well.

Exhibits.—One of the most popular and interesting features of the convention was the exhibits under the very able direction of Mrs. Ily R. Beir. New York had on display a replica of the inside of a living room with a nurse teaching pre-natal and infant care to mothers. Another was the interior of a house in the tenement district depicted before and after free instructions as to cleanliness and orderliness were given by members of an auxiliary group. Utah presented a three-ring circus with germs illustrated in animal forms and the doctor as a scientist eradicating the germs. This was in direct contrast to the illustrations of various forms of quackery, i. e., patent reducers, fake cancer cures, nostrums, vegetarian quackery, etc.

Many states had maps showing the growth of their auxiliaries. Kentucky added to this feaure of their map, the areas in which doctors, nurses, and auxiliary members did voluntary duty during the devastating floods of the past winter. Many states had charts showing their activities: Supplying books for hospitals, contributing layettes and shoes for indigent children, paying for braces, doing sewing in hospitals, giving Christmas parties in orphanages, filling and distributing baskets of food and clothing at Christmas time, and many other worthy projects. The scrap books of numerous states were of especial interest as a record of their auxiliary year by year. Many pictures, cartoons, newspaper clippings, etc., added spice and life to the books. Their members will recall many very pleasant associations as they turn the pages of these books through the passing years.

California was represented by six delegates. It was my pleasure to be asked to respond to the address of welcome given by Mrs. George Rogers of New Jersey. Mrs. Philip Schuyler Doane of Pasadena was elected chairman of the Revisions Committee. Mrs. Doane presented the National Auxiliary with a silver trophy to be presented yearly to the State Auxiliary showing the largest percentage increase in membership. This was received enthusiastically and will no doubt stimulate membership drives. It was won by New York this year. Do you think that California may win it next year?

As you no doubt know, the convention next year will be held in San Francisco. There is some understandable reluctance on the part of the governing bodies to bring these conventions to the Pacific Coast, away from the more populous Eastern centers. I trust, therefore, that all of our members who have friends and acquaintances among the profession in the East will endeavor to persuade them to attend. It is essential that our own members make every effort to be present. May I urge that all of you be ready and willing to give any assistance the convention committee may ask. We must remember also that the doctors and their families who attend the convention will be, many of them for the first time, visitors to California and the West. Let us extend to them every courtesy and endeavor to make their entire stay thoroughly enjoyable.

Finally, may I express to you my appreciation of the opportunity of attending this Fifteenth Annual Convention, in Atlantic City, as your President. I trust that some of the ideas gleaned and the contacts made may be helpful in our work through the coming years.

Very sincerely yours,

MRS. HOBART ROGERS.

Developments in the Antivenereal Disease Campaign in Germany.—By the terms of the law of June 1, 1933, the granting of small loans to couples who wed is contingent on the results of an official medical examination. No loan is granted to any applicant who is suffering from a venereal disease which carries with it the danger of contagion. Practically, this mandatory examination was the basis for a refusal of subsidies to 9,065 (2.7 per cent) of 333,776 applicants during the latter half of 1934 and the first half of 1935. The rejection of 547 applications was based on the existence of a contagious venereal disease: syphilis in 422 instances and gonorrhea in 125 instances. In addition, 209 rejections were made on the grounds of sterility and incapacity for child-bearing, conditions which also may be traced in great measure to some venereal infection.

The law of October 18, 1935, stipulates that a marriage cannot be contracted if one of the betrothed is affected with a contagious disease that might endanger the health of the marriage partner or of the offspring. An engaged couple must obtain from the bureau of health a certification to the effect that no such impediment to marriage is present. The German Antivenereal Disease Society under the presidency of Professor Spiethoff has formulated the following guiding principles with respect to potential contagion: Syphilis is generally considered contagious for four years subsequent to infection. Syphilis is considered as no longer transmissible if four years has elapsed since infection and if after an adequate therapy no symptoms have been manifested for two years. The foregoing periods may be shortened on the basis of scientifically established cure. In gonorrhea in the male patient the urine and prostatic secretion must be negative for gonococci (even for threads) during at least one examination weekly over a period of three months. It is mandatory that these follow-ups be based on recognized scientific provocative tests. If the data so warrant, a shorter period of observation will be deemed sufficient. In the case of a woman gonorrhea patient, it is stipulated that after completion of treatment three months should elapse during which no gonococci are demonstrable (in the urethra, cervix, gland of Bartholin or rectum) at follow-ups conducted at least once each week. As in the case of the man, proper provocative tests are compulsory. Examination before, during and immediately after menstruation is particularly conclusive. Here, too, the period of observation may be shortened on the basis of satisfactory scientific proof of cure. The record, only just made public, of violations of the antivenereal disease law during 1933 is as follows: In all, 346 defendants were convicted, almost exactly the same number as in 1932. Of these 346 persons, 196 were sentenced for indulging in coitus while afflicted with a venereal disease, two for contracting marriage while afflicted with a venereal disease and failure to inform the partner of the illness, 135 for unauthorized treatment of venereal disease and offers to perform such treatment, twelve for attempting to sell appliances alleged to cure or palliate venereal disease, and there was one conviction for violation of the clause which prohibits the suckling of infants by venereal disease sufferers.—Berlin Correspondence, *Journal of the American Medical Association.*

MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings

American Medical Association, San Francisco, June 7–11, 1938. Olin West, M. D., 535 North Dearborn Street, Chicago, Secretary.

California Medical Association, Hotel Huntington, Pasadena, May 9–12, 1938. F. C. Warnshuis, M. D., 450 Sutter Street, San Francisco, Secretary.

* * *

Idaho State Medical Association, Boise, August 30 to September 3. Harold W. Stone, M. D., 105 North Eighth Street, Boise, Secretary.

Utah State Medical Association, Salt Lake City, September 2–4. F. M. McHugh, M. D., 17 Exchange Place, Salt Lake City, Secretary.

Medical Broadcasts*

Los Angeles County Medical Association

The radio broadcast program for the Los Angeles County Medical Association for the month of August is as follows:

Thursday, August 5—KECA, 10:45 a. m., The Road to Health.
Saturday, August 7—KFI, 9:15 a. m., The Road to Health; KFAC, 10:15 a. m., Your Doctor and You.
Thursday, August 12—KECA, 10:45 a. m., The Road to Health.
Saturday, August 14—KFI, 9:15 a. m., The Road to Health; KFAC, 10:15 a. m., Your Doctor and You.
Thursday, August 19—KECA, 10:45 a. m., The Road to Health.
Saturday, August 21—KFI, 9:15 a.m., The Road to Health; KFAC, 10:15 a. m., Your Doctor and You.
Thursday, August 26—KECA, 10:45 a. m., The Road to Health.
Saturday, August 28—KFI, 9:15 a.m., The Road to Health; KFAC, 10:15 a. m., Your Doctor and You.

Division of Immigration and Housing: California Department of Industrial Relations.—During the month of May, ninety-nine labor camps were inspected; twenty-three camps were listed as good, forty fair and twenty-eight bad, and eight closed. Of the total number of camps inspected, fifty-three were old camps and thirty-eight new ones. In the camps inspected it was found that 3,616 occupants were American born, while 1,133 were foreign born, making a total of 4,749, of which 2,487 were men, 1,197 women and 1,065 children.

During the month eighty auto camps were inspected; thirty-eight were listed as good, twenty-two fair, thirteen bad, and six closed. Three hundred and sixty-six housing inspections were made.

The fact that this division has taken the initiative in preparing model ordinances dealing with housing and sanitation in their many ramifications has had a stimulating effect upon cities and counties toward enacting much needed legislation along those lines, and our advice and assistance is now constantly in demand.

The division has pioneered local trailer camp legislation and our model trailer ordinance is now in effect in ten Southern California cities and many other communities have used it as a basis for more comprehensive regulation. Its ordinance banning squatter camps and setting up standards for other types of camps is in effect in one county and two or three other counties have it under consideration for adoption.

* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour, and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

Nationalizing Medicine Urged.—The following news item is of interest when read in connection with the editorial, "Government Medicine." (See pages 75, 117, 120, and 141 in this issue:

"On July 28 Senator Lewis (Democrat) of Illinois asked Congress to nationalize the medical profession.

"He introduced a resolution to make doctors Federal employees."

Woman Scientist Given High Honor.—In recognition of her twenty years' work in psychology and preventive psychiatry for children, the honorary degree of Doctor of Science has been conferred on Dr. Olga Bridgman by Mills College in Oakland. Doctor Bridgman is professor of pediatrics and psychology at the University of California at Berkeley, and in the University Medical School.

Doctor Bridgman has been a pioneer in the work of establishing a union between psychiatry—the science of healing mental ills—and pediatrics, or children's medicine. Psychiatrical treatment of young children is now recognized as a valuable preventive measure, and has become an important part of the science of child healing.

Doctor Bridgman established a children's psychiatric unit as part of the pediatric department of the University Medical School more than twenty years ago. A similar close union of psychiatrist and child specialist has recently been established at Johns Hopkins University, Harvard and Pennsylvania.

In conferring the degree on Doctor Bridgman, Dr. Aurelia Henry Reinhardt, President of Mills College, characterized Doctor Bridgman as a "student of the interrelationships of the mind and body, healer of the ills of childhood, that maturity may be free of deep-rooted sicknesses."

Certified Milk.—A new era in certified milk which, it was predicted, should advance certified milk nutritionally as far as it has been advanced sanitarily, was begun at the joint annual conference of the American Association of Medical Milk Commissions and the Certified Milk Producers' Association of America recently held in Atlantic City.

The first symposium on nutrition ever conducted by the milk industry was held during the conference and pooled the thoughts of some of the leading scientists of the country including Dr. E. V. McCollum of Johns Hopkins University, Baltimore. Every factor in improving the already high nutritional qualities of certified milk and in using that milk properly in the nutrition of mankind was thoroughly discussed.

Frederick B. Carter, Jr., operator of Arden Certified Farm, El Monte, California, was elected president of the Certified Milk Producers Association of America.

Breast feeding of new-born infants is rapidly disappearing among the modern young mothers in large communities, Dr. Harry S. Bikoff, Assistant Pediatrician of the Jewish Hospital, Brooklyn, told the conference. Artificial feeding is necessary and for this purpose the very best form of cow's milk is undeniably certified milk, due to the stringent regulations necessary for its production and distribution, he added.

The whole problem of improving milk quality is traceable directly back to the problem of improving soil fertility, it was asserted by Dr. J. G. Lipman of New Jersey Agricultural Experiment Station, New Brunswick, New Jersey.

Physicians and pediatricians should be educated to the fact that there is a decided difference between certified milk and other grades of milk and a mighty small difference in actual value between the grades of milk other than certified, Dr. Harold L. Barnes, retiring American Association of Medical Milk Commission president, said.

University of California Medical School Course on Handling of Venereal Disease.—A special course on the handling of venereal disease will be offered to physicians at the University of California Medical Center, Third and Parnassus Avenues, San Francisco, beginning Monday evening, August 23. The meetings will be at 8 p. m., in Room 437, Fourth floor, University of California Clinics Building.

The course will consist of ten sessions to be held Monday and Friday nights for five weeks through September 24. The first two sessions will be devoted to bacteriology and pathology, the next three to the pharmacology of the drugs concerned, the next four to the practical clinical management and the final session to the public health aspects of the problem. Illustrated case material will be drawn from the clinics held regularly on Monday and Friday nights.

There will be no charge for this course of instruction. It is open to any qualified physician.

Stanford Post-Graduate Medical Courses. — Post-graduate medical courses for practicing physicians will be given by Stanford University School of Medicine in co-operation with the San Francisco Department of Public Health and the San Francisco Hospital on September 6–10, 1937, inclusive.

There will be a registration fee of $25. An additional fee of $10 will be made to cover the cost of material used in Course Six, Surgical Anatomy and Operative Technic. Each physician may take a morning and an afternoon course and all physicians should attend the evening general meetings. Registration closes September 1, 1937. Applications for registration in these courses should be mailed to the Dean, Stanford University School of Medicine, 2398 Sacramento Street, San Francisco, not later than September 1.

Morning Courses

Course 1—X-ray Diagnosis and Therapy (For doctors experienced in and practicing Radiology, but not limited to those who are specializing exclusively in Radiology). Course by Drs. L. H. Garland, Edward Leef, Eric Liljencrantz, and R. R. Newell.

Course 2—Emergency Surgery and Fractures—(At San Francisco Hospital). Course by Drs. J. W. Cline, Nelson Howard, Donald King, Carleton Mathewson, J. M. Meherin, E. J. Morrissey, W. L. Rogers, and E. B. Towne.

Course 3—Diseases of the Genito-Urinary Tract. Course by Drs. J. R. Dillon, and L. R. Reynolds.

Course 4—Cardiology and Electrocardiography (Limited to fifteen physicians). Course by Drs. A. L. Bloomfield, G. D. Barnett, William Dock, J. K. Lewis, William H. Newman, and J. M. Read.

Afternoon Courses

Course 5—Diagnosis and Treatment of Malignant Tumors. Course by Drs. J. R. Dillon, L. G. Dobson, L. H. Garland, E. F. Holman, Donald King, Eric Liljencrantz, R. R. Newell, F. L. Reichert, Robert Scarborough, D. A. Wood.

Course 6—Surgical Anatomy and Operative Technic (Limited to twenty-four physicians). Course by Drs. Donald King, G. W. Nagel, and R. E. Scarborough.

Course 7—Diagnosis, Treatment, and Control of Syphilis. Course by Drs. C. W. Barnett, G. S. Johnson, and G. V. Kulchar.

Course 8—Ward Rounds in Medicine (Limited to fifteen physicians. Course by Drs. Thomas Addis, A. L. Bloomfield, Garnet Cheney, L. B. Dickey, H. K. Faber, P. H. Pierson, and David Rytand.

Course 9—Clinics in the Medical Specialties. Monday, Tuesday, Wednesday, Thursday, and Friday, 1:30 to 5. Course by Drs. H. E. Alderson, A. L. Bloomfield, J. F. Card, William Dock, S. H. Hurwitz, A. E. Ingels, G. S. Johnson, G. V. Kulchar, M. T. R. Maynard, and W. F. Schaller.

General Meetings

These will be held Monday and Wednesday evenings in Lane Hall, 8 to 10 p. m.

Meeting 1—Evaluation of Recently Introduced Drugs: Dr. M. L. Tainter, Monday evening, 8 to 10.

Meeting 2—Problems in Industrial Health: Dr. W. P. Shepard, Wednesday evening, 8 to 10.

Life Insurance Companies and the Medical Profession.—Dr. Donald B. Cragin, medical director, Aetna Life, retiring chairman of the American Life Convention, in a recent address, gave the results of a questionnaire from 197 companies in regard to the amounts paid the medical profession in the year 1936. For medical fees, plus compensation, plus accident and health and leaving out state insurance, automobile liability, self-carriers, contract practice, a large portion of group and industrial payments, the figure reached the stupendous sum of $70,386,097.42.

From reliable sources an estimate can be made of well over $100,000,000 paid by all companies for medical services in the United States. It was estimated that about $800,000,000 was paid for medical services by individuals in this same year, and it is also interesting to note that $360,000,000 was paid for patent medicine.

Doctor Cragin felt from these figures that the insurance companies were justified in trying for a closer bond between the companies and the medical practitioner and felt that if the figures were understood by the profession at large that, with the information which is available to the profession, statistics on longevity, heredity, and prognosis of disease, an entering wedge for closer coöperation and understanding would be afforded.

American Public Health Association.—The annual meeting of the American Public Health Association will be held October 5–8, in New York City. There will be special sessions on Mental Hygiene, the Hygiene of Housing, and on Public Health Advancing. Among the subjects chosen for joint sessions are Nutritional Problems, with the Child Hygiene and Food and Nutrition Sections; Water-Borne Diseases, with the Public Health Engineering and Epidemiology Sections; the Crippled Child, with the Child Hygiene and Public Health Nursing Sections and Syphilis in Industry, with the Industrial Hygiene and Public Health Nursing Sections. There will be an intensive three-day Institute on Public Health Education before the annual meeting begins, sponsored by the Health Education Section and under the direction of Professor Ira V. Hiscock of Yale University. The Scientific Trips Committee with all of New York's multitudinous official and non-official health agencies to choose from, is preparing a program of inspection trips that alone would merit attendance at the convention. The American Association of School Physicians, the National Organization for Public Health Nursing, the Federation of Sewage Works Operators, and several other allied national groups will join with the American Public Health Association in a series of scientific sessions. All inquiries should be addressed to the American Public Health Association, 50 West Fiftieth Street, New York City.

California Industrial Accident Commission: Safety Department.—The accident prevention work of the Industrial Accident Commission began in 1914 in a small way. During that year there were 691 industrial deaths and the population of the State was estimated at 2,832,398. For every 4,100 people in the State there was on industrial death. The estimated population for 1936 is 6,800,000. Had the 1914 industrial death rate continued there would have been 1,660 industrial deaths in 1936, whereas there were actually but 563.

This indicates that the industrial death rate from 1914 to 1936, has been reduced about 66 per cent. During the years 1926 to 1935, inclusive, there were 437 accidents reported to the Commission for every death reported.

It is estimated that the lives of more than 11,000 employees have been saved by the accident prevention work done by the employees, employers and the Commission. If that estimate is correct, there were almost five million personal injuries prevented during this same period.

Regardless of what may be said concerning the accuracy of these estimates there can be no denial of the fact that thousands of lives have been saved and millions of personal injuries prevented.

Today the problem is not "How many lives have been saved?" but "How can the present accident situation be improved?" There is only one answer: more complete co-operation between the employees and employers with the Commission.

The American College of Physicians.—The Twenty-second Annual Session of the American College of Physicians will be held in New York City, with headquarters at the Waldorf-Astoria Hotel, April 4–8, 1938.

Dr. James H. Means, of Boston, is President of the College, and will have charge of the program of general scientific sessions. Dr. James Alexander Miller, of New York City, has been appointed General Chairman of the Session, and will be in charge of the program of clinics and demonstrations in the hospitals and medical schools and of the program of Round Table Discussions to be conducted at headquarters. For information, address E. R. Loveland, Executive Secretary, 4200 Pine Street, Philadelphia, Pennsylvania.

University of California Slash: Merriam's Budget Cut Cripples Program.—Press dispatch follows: San Francisco, July 20.—President Robert Gordon Sproul of University of California submitted to the Board of Regents today what was described as a schedule of wholesale abandonment of programs and activities necessary to expedient operation of the school.

Curtailment is necessary, Doctor Sproul said, because Governor Merriam slashed an emergency budget request of $455,000.

The board is considering discontinuance of the agriculture crop survey, elimination of salary adjustments for sixty to seventy-four professors, general reductions at the School of Medicine, and postponement of plans to keep the Medical School's Class A standing.—*Los Angeles Examiner.*

Campaign Against Trichinosis Will Be Carried to Producers.—To acquaint swine producers more fully with the need to prevent infestation of their hogs with small parasites, known as trichinae, the United States Department of Agriculture is sponsoring a program of information on the subject. This activity among producers is a counterpart of a similar campaign conducted among consumers for many years to induce them to cook pork thoroughly as a safeguard against trichinosis.

In a recent circular letter, Dr. John R. Mohler, Chief of the Bureau of Animal Industry, directs each inspector in charge of Federal veterinary activities in the principal hog raising states to designate a member of his force to contact farmers and other swine producers individually and in meetings for the purpose of more effective control of trichina infestation in hogs.

"These contacts," he states, "should be made as often as opportunities for doing so present themselves and should be continued over a period of several years." Doctor Mohler points out that the persistence of trichinosis in man is likely to react unfavorably sooner or later on the swine industry and injure it financially. The trichinosis educational campaign is expected to prevent such an occurrence.

The Bureau of Animal Industry's recommendations, as set forth in the official letter to inspectors, are in part as follows:

Inasmuch as investigations conducted in the bureau have shown that the incidence of trichinae in garbage-fed hogs is much higher than in hogs not fed on garbage, it is essential to stress that the feeding of raw garbage tends to spread trichinosis among swine. Other sources of trichinosis in swine are: (1) The feeding of offal from slaughterhouses; (2) the feeding of the contents of scrap barrels; (3) the failure to bury, burn, or otherwise dispose of hogs or other animals which die on lots and pastures and which may be eaten by hogs.

A strict adherence to the swine sanitation program, as developed by the Bureau of Animal Industry, will aid in preventing the spread of trichinae among hogs and will reduce the extent of infestation with these parasites. The sanitation system precludes the feeding of garbage, offal, kitchen scraps, and other food containing scraps of raw pork, and involves the use of clean pastures and sanitary housing. This system decreases the cost of swine production, favors the growth and development of pigs, and finishes pigs for market at six to seven months of age. The system, if carried out as recommended, will reduce if not eliminate altogether trichinosis in swine, since it removes most of the known sources of trichinae.

"Overweight Mortality."—Pearce Shepherd, assistant actuary, Prudential, at the American Life Convention, presented a paper on "Overweight Mortality." Dr. H. A. Baker, medical director, Kansas City Life, termed this a most significant contribution. The overweight is definitely a better risk than forty years ago, he said, yet combined overweight and high blood pressure is an increasing risk. Glycosuria is more frequently found among overweights. E. M. McConney, vice-president and actuary, Bankers Life of Iowa, also discussed the paper. He feels overweights are a worse risk today due to cardio-vascular-renal diseases to which they are subject being in a rising curve. Medical science, he said, has done little to improve the mortality of overweights. He concluded the time may be at hand when a joint mortality study on combinations of impairments should be made.

Maryland Eradicates Bovine Tuberculosis—Other States Make Progress.—Maryland is the forty-fourth state to eradicate bovine tuberculosis. It became a modified accredited area July 1—that is, infection among cattle is reduced to less than one-half of 1 per cent as shown by the tuberculin test—the United States Department of Agriculture reports.

Three other states also were conspicuously successful in tuberculin-testing work during June. California reported the following counties for modified accreditation: El Dorado, Lake, Sacramento, and Yuba. New York officials reported the necessary progress, to accredit four counties, Chenango, Delaware, Lewis, and Otsego.

In South Dakota, officials in charge of tuberculosis eradication work reported five counties: Brown, Hyde, Jerauld, Moody, and Spink, as accredited. Similar work is being conducted in Puerto Rico where seven municipalities were placed in the modified accredited area July 1.

Rabies.—Rabies in dogs is subject to periodic waves of increase in different regions. Only recently an extensive outbreak occurred in Chicago. Many persons were bitten and deaths from human rabies occurred. In connection with this matter the following statement in the review for 1936 by the president of the Rockefeller Foundation is highly significant: "In 1936 the Foundation began laboratory and field work in relation to rabies, which has become an increasing menace, particularly in some of the Southern states. Little has been done on this disease since Pasteur's day; and it is hoped that a quicker and more positive test for rabies in animals may be developed, and perhaps a less cumbrous method of vaccination." The very best that can be said for the one injection of antirabies vaccine is that it is still no further than in the experimental stage. Whether many dogs have developed rabies after the injection of live viruses is extremely difficult to determine, but that possibility cannot be denied. Negri bodies are sufficiently characteristic to be regarded safely as diagnostic, but the examination of suspected cases, like all examinations of such nature in general, are, of course, reliable only in competent hands.

American Pharmaceutical Association.—Since the issuance of the first list of fifty-four corrections in *National Formulary* VI in June, 1936, the committee on *National Formulary* has carefully studied other suggested corrections in the text and have compiled a second list of thirty-six corrections to be made in the first and second printings of the *National Formulary* VI, bearing official coupons with serial numbers from 100,001 to 135,260. The corrections have been approved by the Council of the American Pharmaceutical Association, and corresponding corrections will be made in subsequent printings of *National Formulary* VI.

A list of these corrections, with an index, printed on one side of the sheet and in type corresponding to that replaced, is available, without cost, and is so arranged that the sheets can be inserted in the front of the *National Formulary* VI or that each correction can be cut out and pasted over the wording it is to replace.

Requests for corrections in *National Formulary* VI (second list), may be sent to Mack Printing Company, Easton, Pennsylvania, or the American Pharmaceutical Association, 2215 Constitution Avenue, Washington, D. C., and must give address and be accompanied by sufficient postage to insure delivery.

American Board of Obstetrics and Gynecology.—The next written examination and review of case histories of Group B applicants by the American Board of Obstetrics and Gynecology will be held in various cities in the United States and Canada on Saturday, November 6, 1937.

The next general examination for all candidates (Groups A and B), will be held in San Francisco, California, on June 13 and 14, 1938, immediately prior to the American Medical Association meeting.

Application blanks and booklets of information may be obtained from Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania. Applications for these examinations must be filed in the secretary's office not later than sixty days prior to the scheduled dates of examination.

Doctor Worth $108,000 To Begin Career, Rating.—United Press ditpatch follows:

New York, July 14.—After eight years of research, a Columbia University professor came to the conclusion today that a doctor is worth $108,000 as an investment when he starts his profession, a lawyer $105,000, and a farm laborer $10,400.

Professor Harold F. Clark, in charge of educational economics at Teachers College, undertook his study in an attempt to develop means of guiding students more accurately into paying professions.

He concluded that a banker could invest safely $108,000 in a budding doctor on a promise of receiving all of the physician's future earnings. The average life span of a doctor is forty-two years, it was estimated. On a similar basis, Clark figured the following "safe" investments in other professions:

Dentistry, $95,400; engineering, $95,300; architecture, $82,500; college teaching, $69,300; social work, $51,000; journalism, $41,500; ministry, $41,000; library work, $35,000; public school teaching, $29,700; skilled trades, $28,600; nursing, $28,300; unskilled labor, $15,200; farming, $12,500.

"Wonder Woman" in Pasadena.—The following news item has been sent in by a member, with suggestion that it be printed:

See this WONDER WOMAN OF 83. She's a living example of pep, youth, and radiant health. ————————, author, world traveler, scientist, who will show you the way to the fountain of youth, life, energy, and vitality. *Six Free Radiant Health Lectures.* Twice daily, July 19, 20, 21. Monday, July 19, 1:30 p.m.: "Old at Forty or Young at Eighty—Which?" Monday, July 19, 8 p. m.: "How to Conquer Fear, Worry and Timidity." Tuesday, July 20, 1:30 p.m.: "The Four Causes of Disease." Tuesday, July 20, 8 p.m.: "How to Become a Human Dynamo or Prosperity Magnet." Wednesday, July 21, 1:30 p.m.: "Rhythmic Solar Plexus Breathing—the Elixir of Life." Wednesday, July 21, 8 p.m.: "The Secret of Youth, Pep and Charm."

Would You Like to Know—How to feel peppy, twenty-four hours a day; How to increase your business efficiency a thousand fold; How to develop the elasticity of youth; How to take years—from your personal appearance; How to capture the enthusiasm and zest of youth; How to develop a magnetic personality; How to eat scientifically—and rebuild a complete new body; How to get a quick pick-up—without the aid of stimulants; How to sleep like a child; How to awaken in the morning with pep, interest, enthusiasm; How to reduce your weight—without fasting; How to get rid of corns, bunions, and fallen arches—and step out with the grace and the lightness of youth; How to throw away your glasses—and read with ease; How to outwit age completely—and live joyously, radiantly and gloriously—regardless of youth birthdays.

Something New—This is the most amazing course of lectures ever given in this city. Mrs. ————, herself is a striking example of rejuvenation. Twenty years ago she was old and decrepit. Today, she is radiant, dynamic, beautiful. She has inspired thousands to health, happiness, and success—Why not you? You owe it to yourself not to miss a single lecture. All lectures are free but come early to get good seats. Doors open at 12:30 and at 7 p. m. Shakespeare Club House, Pasadena.

LETTERS

Concerning Association Secretary's Address to the California State Nurses Association.

THE CALIFORNIA STATE NURSES ASSOCIATION, INC.

Dear Doctor Warnshuis:

As Secretary for the California State Nurses Association's Committee on Public Information and at Headquarters, I wish to convey the official appreciation of the organization for your fine address at the Publicity Luncheon on Friday.

We were happy to have you present as the official representative of a professional organization whose interests are so closely allied to ours.

I need not tell you that we were deeply interested in your message, as the attention of the nurses during your presentation must have been ample evidence of this fact.

It is characteristic of the preparation of registered nurses to give their loyal support toward upholding the standards of the medical profession. Registered nurses recognize that it is dangerous for public welfare to have inadequately prepared individuals attempt to prescribe for human ills.

We trust that the nursing organization may have the full support of the members of the medical profession in upholding standards of nursing care as we, too, suffer from pseudo-practitioners.

Thanking you both officially and personally, I am

Cordially yours,

STELLA M. FREIDINGER,
Acting Director at Headquarters.

Concerning Venereal Disease Reports.

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH

To the Physicians of California:—The venereal disease control program is now under way. The first objective is as follows:

EVERY CASE OF VENEREAL DISEASE TO BE REPORTED

The California State Board of Health on January 2, 1937, altered the reporting of venereal diseases to conform in general with the recommendations of the United States Public Health Service.

A new card is enclosed herewith. You are asked to destroy all the old type cards you may have. Additional cards may be obtained by placing a check, or the number desired, in the square placed on the card for this purpose.

Syphilis and gonorrhea are reportable by law, failure to report constituting a misdemeanor.

In reporting, fill out the card, place it in the envelope which is provided and which requires no postage, and address the envelope to your local health officer or to the State Department of Public Health, State Building, San Francisco. These reports are confidential records and are to be handled as such by health departments. You will note that they need not reveal the identity of your patient.

The information requested on the card is essential in order that we may know the incidence and distribution of these diseases. This information is fundamental in any control program.

Venereal disease control is dependent upon coöperative efforts. The full support of the practicing physician is of first importance. This support begins with the reporting of all cases. May we urge your coöperation in this respect?

In addressing the recent Washington Conference on Venereal Disease Control, on the subject of coöperation of the private physician, Dr. Udo J. Wile, Professor of Dermatology and Syphilology, University of Michigan Medical School, said in part:

The whole-heated coöperation of the private physician in the program of national control of a communicable disease is not only an imperative necessity but carries with it an obligation of public and private responsibility. In assuming the care of a case of communicable disease, the physician assumes a dual responsibility. He is obligated to the patient in the first place, to carry through with him until such time as he ceases to be a public health problem. His second responsibility, a more public one, is, by strict adherence to existing regulations, to carry out such measures as are prescribed by health authorities so that

during the patient's infective period he is of little or no risk to those with whom he comes in contact. . . .

From the standpoint of vital statistics, and for the immediate purposes of the study of venereal disease incidence, it is of paramount importance to recognize that earnest and sincere coöperation on the part of the practicing physician is required to fulfill the obligation of reporting, which is of first importance in the control of any communicable disease. There is no doubt that considerable reluctance, based upon the traditional relationship between physician and patient, still exists which may retard the immediate success of venereal disease reporting. Nevertheless, in the light of public interest and of an awakened public consciousness, this tradition is being modified where public interest so requires. Reporting by name already exists in some states, and there can now be no legitimate objection to reporting, at least by initial or number and address, under all circumstances with the condition that such information remains of a confidential nature so far as public health officials are concerned, and can in no way be used to endanger the reputation or character of those concerned. . . .

The State Department of Public Health, through the recently formed Bureau of Venereal Diseases, is anxious to be of every possible help to physicians in the care of venereal disease cases. A special bulletin on the treatment of syphilis is enclosed and it is hoped that it will prove helpful to you.

An announcement of the second objective in the venereal disease program will reach you in the near future.

MALCOLM H. MERRILL, M.D., *Chief*
Bureau of Venereal Diseases
State Department of Public Health
coöperating with
U. S. Public Health Service.

Approved:
WALTER M. DICKIE, M.D.
Field Agent, U.S.P.H.S.

Concerning Donation to the Barlow Medical Library.

June 17, 1937.

To the Association Secretary:—I have just returned from the Convention of the Medical Library Association, and find a notation of a gift of $1,242.75 from the California Medical Association.

These annual contributions enable us to purchase for the Library many items of medical literature which otherwise we could not have. The more extensive the library, the better service we can render to the doctors of the County and State.

We express our appreciation and thanks for this generous gift.

Yours very truly,
MARY E. IRISH,
Librarian.

Concerning the Pan American Medical Cruise.

PAN AMERICAN MEDICAL ASSOCIATION

June 19, 1937.

To the Editor:—The Executive Committee of the Board of Trustees takes great pleasure in announcing that the *Queen of Bermuda* has been chartered for the Seventh Cruise-Congress. As you know, we had this boat for the last cruise and it proved to be most ideal for our purposes. Following is the itinerary:

Leave New York	January 15, 1938
Arrive Havana (4½ days and 5 nights in Havana)	January 18, 1938
Leave Havana	January 23, 1938
Arrive Port au Prince	January 24, 1938
Leave Port au Prince	January 24, 1938
Arrive Trujillo City (Santo Domingo)	January 26, 1938
Leave Trujillo City (Santo Domingo)	January 26, 1938
Arrive San Juan (Puerto Rico)	January 27, 1938
Leave San Juan (Puerto Rico)	January 27, 1938
Arrive New York	January 31, 1938

The main part of the Congress will be held in Havana. There will be three days of scientific sessions with operative clinics. These will be divided into sections for the various specialties. This year we have four new sections: Tuberculosis, gastroenterology, dentistry, and industrial medicine. Meetings will be arranged with our medical colleagues at the other ports of call.

The Hotel Savoy-Plaza in New York, and the National Hotel in Havana will be our official hotels.

Travelways, Inc., have chartered the *Queen of Bermuda* on behalf of our Association and will act as our official travel agents. As this Congress promises to be the most successful ever held by the Association, it would be highly advisable to book reservations as early as possible with Travelways, Inc., who will make every effort to satisfy the requirements of the members of the Congress. Applications for reservations should be addressed to the Pan American Medical Association at 745 Fifth Avenue, New York City.

The program committee would be pleased to receive applications for the presentation of scientific contributions.

Cordially yours,
JOSEPH J. ELLER, M. D.

Office of Director General,
745 Fifth Avenue, New York, N. Y.

Concerning Donation to the Lane Library.

To the Association Secretary:—At the last meeting of the Board the President of the University advised us of the receipt of check for $1,242.73 from the California Medical Association as a contribution to the Lane Medical Library.

The Trustees deeply appreciate this generous action on the part of the Association, and I was requested to extend, through you, their profound thanks to the members of the Association.

Yours very truly,
IRA S. LILLICK, *Secretary.*

Concerning: "If and when we have State Medicine."

To the Editor:—What will be the status of the specialist if and when we have State Medicine? How will the various specialties be classified? How will the men in the different branches be selected, on the basis of years of practice, years of post-graduate work, or by the number and kind of influential political friends, or on the basis of competitive examination, similar to civil service?

Will post-graduate work be encouraged? If so, will the State pay for it, pay for the time off, similar to army regulation? Who will designate the places to study? Will that be left to the discretion of the individual physician, or will it be controlled by a board? If by a board, will it be composed of doctors or laity?

What will be the psychological reaction of the mass of the profession toward the compulsory attendance of patients? What will be the stimulus for exhaustive study of puzzling cases?

Will every section of the human anatomy be divided for special study, and be under the jurisdiction of a specialist in that part? If so, what will be the result obtained by the narrow specialist in relation to other ailments of the same individual? Will it be necessary to have a dozen specialists in consultation if a patient should complain of symptoms in different parts of the body?

What will be the inducement to physicians to write scientific articles?

What will be the relation of physician to patient? What if an illiterate patient decides that the physician attending the case is not competent—will he go to the lay committee to complain, or will he go to some politician friend to have the doctor disqualified, or reduced in rank?

If State Medicine becomes a practice, can the State stop there? What effect will it have upon the new graduates? Are they to become specialists as soon as they graduate, or must they go out in the field as general practitioners? If as specialists, who will pay for their time and tuition? The hospitals in which they study will have to conform to some degree with the plan, and will they, as a consequence, be supported by the State? What then will become of the private donations to these institutions? If private bequests are withdrawn, will that increase the amount necessary to support the institution to be given by the State, and will that in turn increase the State's budget and in turn increase the taxes?

If the physician is a State agent, will the medical students attending the State schools be subject to pay the present rate of medical tuition? If cheaper, what will become of the private schools?

What will become of the various medical societies? What will be their value? Certainly not for medical protection,

for if State Medicine comes, that in itself will show that the medical societies are not capable of protecting their interests. Certainly not to protect the lay people against themselves, because that will be too late. Will it be necessary to belong to a medical society to be in good standing? Do State officers, clerks, judges, and various other State employes belong to fraternities in order to be in good standing?

If there is a change in the political situation, will the general practitioner of today be the specialist of tomorrow? If there are one hundred graduates, and a vacancy for only fifty doctors, what will become of the other fifty? Or will the State regulate the number it will need to be permitted to graduate or enroll? If a physician who is in ill health, or for other reasons needs to or desires to make a change from one state to another, will it be necessary to make a political application, medical application, or wait for a quota, or wait for a vacancy?

If there exists an old-age law, will the doctor be removed after a certain age, and be placed on a pension? Will a surgeon be replaced at a younger age than a general practitioner?

Who will be responsible for malpractice suits, the doctor or the State?

If each physician asked himself each one of the foregoing questions, and made an attempt to answer as he thinks the situation might be, we would have a more concise idea as to the precise effect upon us and the laity if and when we have "State Medicine."

6253 Hollywood Boulevard, Hollywood.

HAROLD I. HARRIS.

Concerning the use of Healing Art Degrees by Persons not licensed in California.

(Copy)

STATE OF CALIFORNIA
LEGAL DEPARTMENT

San Francisco, July 9, 1937.

C. B. Pinkham, M. D.,
Secretary-Treasurer,
Board of Medical Examiners,
450 McAllister Street,
San Francisco, California.

Dear Sir:

I have your communication of the fourteenth instant in which are asked the following questions:

"May the holder of a certificate as a physician and surgeon, licensed by the Osteopathic Board in this State, who is a graduate of the Rush Medical School, Chicago, and who holds from that school the degree of M. D., use the term M. D. on his professional cards, or otherwise, in connection with the term D. O., without infringing the State Medical Practice Act?

"In the event your answer is that such a physician and surgeon may not use the term M. D., then I should like to know if the term D. O. and M. D. could be used by such certificate holder, not for the purpose of practicing professionally, but as a member of the faculty of a non-accredited school for the purpose of teaching?"

In reply, please be advised the use of the suffix "M. D." on a professional card would, in my opinion, violate that portion of Section 17 of the Medical Practice Act of this State which prohibits a person not licensed under said act from using in any sign or advertisement the letters "M. D."

The Legislature, in my opinion, has the right to prevent persons possessing such degree from using the same for the purpose of securing professional business, unless they be licensed.

The fact of being licensed by the Osteopathic Board as a physician and surgeon is not important. Such a person cannot use professionally the suffix "M. D." without being licensed by the Medical Board.

The same situation would prevent a physician and surgeon licensed by the Board of Medical Examiners from using the expression "D. O." or any term indicating he was licensed as an osteopathic physician and surgeon.

As to your second question, it is the view of this office that the Legislature has no right to limit the use of a personal degree if its action will not in some way serve to protect the public. A person possessing and using a *bona fide* degree, not in connection with the practice of medicine, could in no way impose on members of the public.

Teaching cannot be said to ordinarily constitute the practice of profession or a holding oneself out as so doing. For example, the teaching of chemistry, physics, or anatomy would not be practicing medicine.

However, should a person advertise himself as an "M.D." without licensure by the Board of Medical Examiners, and either examine or diagnose members of the public, a violation of the law would follow. (*People* vs. *Jordan,* 172 Cal. 391.)

Very truly yours,

U. S. WEBB, *Attorney General.*

LB:F
JJE 1439

By (signed) LIONEL BROWNE,
Deputy.

Concerning Animal Rabies in Los Angeles County.

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH

June 24, 1937.

To the Editor:—You are familiar with the rabies situation in Los Angeles, and what we have done in supporting Doctor Parrish in his efforts to have a ninety-day quarantine ordinance adopted by the City Council. The opposition to rabies control measures, in my opinion, comes from the manner in which they are carried out. The old method of procedure was to have police officers and deputy sheriffs shoot dogs on sight, and arouse the antagonism of dog owners and the general public.

We recommend that a limited quarantine be placed on all dogs; that owners of dogs be requested to confine them to their premises or exercise them on a leash; that the humane society be requested to collect all stray dogs; that a proper pound or place of retention be established under the supervision of a man who understands dogs (preferably, of course, a veterinarian); that dogs be retained in the pound for sufficient time so that owners may claim them. At the end of a certain period of time, stray dogs should be disposed of in a humane manner. Owners should be advised to vaccinate their dogs.

This may not be 100 per cent effective, but the two measures taken together, namely, the picking up of stray dogs and the vaccination of privately owned dogs, rapidly clears up the rabies situation. However, it is not an activity which can be undertaken sporadically, but should be a continuous activity in both the city and county health departments. I feel that the health departments would be justified in establishing a Rabies Control Division, and devote their time to the same.

One of the greatest difficulties we have had to contend with is that the dog tax in most places is a revenue tax. It has always seemed to me that dog owners who pay the tax should receive something in return; either free vaccination for their dogs, or their dogs should not be menaced by a stray dog population.

It has been suggested that, instead of depending on the Rabies Act, the Board adopt rules and regulations for the control of rabies, with special reference to the handling of actual cases and contacts. This would give the health officer a continuous authority to deal with the situation, rather than having to adopt local ordinances or to request the enforcement of the State Rabies Act.

Very truly yours,

W. M. DICKIE,
Director of Public Health.

CALIFORNIA STATE DEPARTMENT OF PUBLIC HEALTH
RABIES IN ANIMALS

Months	Los Angeles County Total 1936	Los Angeles County Total 1937	Los Angeles City 1936	Los Angeles City 1937	California 1936	California 1937
January	101	87	76	50	122	106
February	74	135	45	62	86	156
March	74	180	34	84	94	235
April	68	182	35	97	80	213
May	55	186	24	82	71	227
June*	71	119	30	61	95	137
July	51	.....	9	.....	83	.....
August	49	.....	16	.....	65	.....
September	61	.....	15	.....	81	.....
October	71	.....	30	.....	85	.....
November	62	.....	17	.....	83	.....
December	87	.....	33	.....	107	.....
Totals	824	889	364	436	1,052	1,074

* Month of June, 1937: first three weeks only

Concerning California's Migratory Workers Problem.*

STATE OF CALIFORNIA
BOARD OF PUBLIC HEALTH
SACRAMENTO

BOARD OF PUBLIC HEALTH
Howard Morrow, M. D., *President*, San Francisco
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William R. P. Clark, M. D., San Francisco
Gustave Wilson, M. D., Sacramento
Roy A. Terry, M. D., Long Beach
George H. Kress, M. D., Los Angeles

To the Board Members:

A letter recently received from the United States Surgeon General makes reference to coöperation of local health departments and the State Department of Public Health with the Resettlement Administration. I am informed that at the present time there are between 150,000 and 200,000 migratory workers in the State of California. They have entered the State at the rate of about 50,000 a year. Many of these people are employed or seeking employment in the harvesting of the various crops in California. They have come from the south as well as from the drought areas and middle western states. They are poorly nourished, living for the most part on the vegetable products which they are harvesting. The Resettlement Administration is making a demonstration in the establishment of camps, the location of which is enumerated in the enclosed copy of letter from the Surgeon General. There are in these camps at the present time some 10,000 workers. One of these camps, at Marysville, has been in operation for about three years, and the population fluctuates from about thirty families in winter, to about two hundred in summer. These people are furnished shelter by the Government, but no subsistence, though many of them may be upon the relief rolls.

The chief of our Bureau of Tuberculosis, E. T. Thompson, first brought to our attention the prevalence of tuberculosis among these workers, and in order that a survey might be made to determine the extent of the incidence of tuberculosis, we requested from the Surgeon General funds to make a complete survey, taking the chest pictures of all suspects, which would involve the employment of personnel, a trailer and necessary equipment. This request has not as yet been granted by the Public Health Service, as it is contained in the budget for the second quarter of the fiscal year.

The Bureau of Child Hygiene of the California State Board of Public Health has been holding clinics among this group of people, making complete examinations of all the children. Of course, after these surveys have been made, the question naturally arises as to what we are going to do. As far as the tuberculous patients are concerned, the Bureau chief's idea seems to be the only one which would meet the emergency, namely, that the Government provide funds for a subsidy so that these people might be cared for in our private tuberculosis hospitals. I understand that Arizona is willing to coöperate in making such a request from the Federal Government.

Finally, there is the question of the effect these people camping on the outskirts of many of our communities is going to have upon the health of the people of California. Undoubtedly a large percentage of these people are going to qualify for county relief in case of illness, as soon as they have been in the State the required period of time, and they will then become our problem.

In talking with Mr. Mills, who heads the Resettlement Administration here in California, he states they would like to have us carry out the suggestion of the Public Health Service that we render assistance. We are, at the present time, subsidizing Imperial County with sufficient personnel so that they can take care of the camps of that county. The same would apply to Riverside County. Los Angeles County, according to Mr. Mills, has a negligible number of migratory workers. This leaves Northern California and the San Joaquin Valley. By the employment of an epidemiologist or a medical man who had some experience in health work, and two nurses, one located in the San Joaquin Valley, which would include three hospitals, each one of them fifty miles from the other two, and one in Northern California, would probably take care of the infectious diseases.

Provision has been made in these camps for clinic facilities, and the idea would be that the doctor could conduct a clinic at least twice a month in the various camps, and that these cases would be allocated to the health officer or the local unofficial agencies for care.

Though there are only about 10,000 in this group under the Resettlement Administration, there are marginal camps surrounding these government camps which have probably a population which is in greater distress, and they would have to be included.

In addition, of course, our Department is always available in case of an emergency. Our greatest fear among this population is an outbreak of typhoid fever. We have had a decided increase in the incidence of typhoid during the past year among itinerants, and an epidemic of twenty cases in San Bernardino County.

This subject will be brought up for discussion at the next meeting of the Board.

Very truly yours,

W. M. DICKIE,
Executive Officer.

* See also in this issue: Editorial comment on page 74; and press clippings on pages 142 and 143.

Concerning Retiring President Pallette's Address on "Human Betterment."

To the Editor:—My compliments to Dr. E. M. Pallette of Los Angeles, Retiring President of the California Medical Association, for his wonderful article on "Human Betterment" (May issue, CALIFORNIA AND WESTERN MEDICINE, page 296). This article should be read by everyone all over the country. Doctor Pallette has stated some very patent truths.

We modern humans are suffering from a load of human misfortunes that will fast become a serious problem. What with our earnest endeavor to relieve pain, save, and prolong life, we have reduced infant mortality to a minimum and extended the longevity of man to almost a maximum, having thoroughly upset nature's balance of elimination of the unfit. As a result of the reduction of infant mortality we are getting an increase of the feeble-minded, the criminal, the mentally and physically unfit, all of which will become a social and financial problem to the next generation.

Rosenberg Building, Santa Rosa, California.

Very truly yours,

W. C. SHIPLEY, M. D.

Concerning Untoward Effects of Sulphanilamide.

Los Angeles, July 13, 1937.

Editor, California and Western Medicine,
450 Sutter Street,
San Francisco, California.

Dear Doctor Kress:

Since the more extensive use of Sulphanilamide recently, I believe it of interest to report seeing a case of extensive dermatitis involving almost the entire body, more specially neck, hands, and arms.

This particular patient did not carry out his physician's instructions. He failed to report for observation as soon as he should have and he failed to reduce the dosage as his doctor had told him.

This case illustrates the fundamental principle in all medication in that it may be an idiosyncrasy to the drug, or that the patient's elimination of this drug is subnormal and an accumulation resulted, or the dosage was too great for the individual.

1930 Wilshire Boulevard.

Very truly yours,

CHARLES R. CASKEY, M. D.

MEDICAL JURISPRUDENCE†

By Hartley F. Peart, Esq.
San Francisco

A Discussion of the Chapter on Medicine of the New Business and Professions Code of the State of California

The Legislature, at the session just concluded, enacted Senate Bill No. 133, introduced by Senator McGovern of San Francisco. This bill has received the approval of the Governor. It contains the chapter on medicine of the Business and Professions Code of the State of California. Upon becoming effective (ninety days after adjournment of the Legislature)* the chapter on medicine of the Business and Professions Code will replace the present Medical Practice Act.

The Business and Professions Code was drafted under the supervision of the California Code Commission, which was created some years ago for the purpose of bringing about the codification of all existing statutes. In drafting the chapter on medicine, the expressed purpose of the Code Commission, to which it rigidly adhered, was to rephrase the language of the present Medical Practice Act in order to simplify and consolidate wherever possible without changing in any way the substantive law contained in the Act. Consequently, the chapter on medicine of the Business and Professions Code, as enacted by the Legislature, does not involve any material change in the existing law relating to the practice of medicine, but it does contain an almost complete revision of the structure and language of the Medical Practice Act.

We will not at this time endeavor to discuss the entire chapter on medicine, but will confine ourselves to a review of several of the general provisions which are of particular legal significance. The chapter on medicine consists of Sections 2000 to 2496 of the Business and Professions Code. At the outset, Section 2000 states: "Whenever a reference is made to the State Medical Practice Act by the provisions of any statute, it is to be construed as referring to the provisions of this chapter," thereby insuring the continuance in effect of those statutes, and there are a number of them, which refer to the Medical Practice Act. Section 2000 also has the effect of rendering the Business and Professions Code applicable to the osteopathic initiative.

The Code continues with definitions of various terms and then contains the following sections, which are of utmost importance to the medical profession:

2006. The term "person" means a natural person when a right, privilege or power is conferred by this chapter upon a person.

2007. The term "professional" relates to the art and science of medicine and surgery and to such other arts and sciences as may be included within the field of medicine and surgery.

2008. Corporations and other artificial legal entities have no professional rights, privileges or powers.

* * *

For a number of years controversies have existed with respect to the practice of medicine by various types of corporations. In at least two instances cases have been taken to the District Court of Appeal in order to determine what legal limitations existed upon the practice of medicine and surgery by a corporation (*Pacific Employers Insurance Company* vs. *Carpenter,* 10 Cal. App. (2nd) 592, and *Benjamin Franklin Life Assurance Company* vs. *Mitchell,* 85 Cal. App. Dec. 1058).

Should such a situation arise after the chapter on medicine of the Business and Professions Code has become effective, it will only be necessary to refer to the statutes in order to secure an answer to both of the foregoing questions. With respect to the question of the lack of power of a corporation to practice medicine, Section 2008 specifically controls. The provision of Section 2008 that: "Corporations and other artificial legal entities have no professional rights, privileges or powers," can only mean that a corporation may not lawfully engage in any way in the practice of medicine and surgery. This is clear beyond question when one refers to Section 2007, which defines the word "professional" as relating to medicine and surgery.

With respect to the second question, *i. e.*, employment by a corporation of licensed physicians and surgeons to furnish professional services to persons selected by the corporation, it is likewise apparent that Sections 2006, 2007, and 2008 declare such conduct unlawful. Under Section 2006, any right, privilege or power conferred upon a person by the chapter on medicine only includes natural persons. Of course, one of the privileges conferred by the chapter is the privilege to practice medicine and surgery granted to those persons who hold physician's and surgeon's certificates. Section 2006 clearly means that all of the rights, privileges, and powers which each physician and surgeon possesses, by virtue of holding an issued and unrevoked physician's and surgeon's certificate, may only be exercised by the holder, a natural person, on his own behalf. Should a physician attempt to exercise any of the rights conferred upon him by his physician's and surgeon's certificate on behalf of a corporation, or should he attempt to delegate any of those rights to a corporation, such attempt could not legally be effective because every right, every privilege and every power granted to such physician by his certificate is limited to a natural person. Corporations, of course, are not natural persons. Sections 2007 and 2008 completely remove any doubt that might exist by expressly stating that the word "professional" realtes to medicine and surgery and that corporations have no professional rights, privileges or powers.

In the administration of the present Medical Practice Act the State Board of Medical Examiners has at times been handicapped by the lack of an express statutory provision prohibiting corporate encroachment into the field of medicine and surgery. The sections of the chapter on medicine of the Business and Professions Code, which we have been discussing, wholly remedy this defect. In the future it may be said with full assurance that in California a corporation may not legally practice medicine or surgery in any manner, directly or indirectly.

* * *

In connection with Section 2007, which defines the term "professional," it should be noted that many of the sections in the chapter on medicine relating to educational requirements require "professional instruction." These requirements are found in sections dealing with drugless practitioners as well as in sections dealing with physicians and surgeons. Also, by virtue of references in the osteopathic initiative, a number of the sections requiring professional instruction apply to osteopaths. Since "professional" is defined in Section 2007 as relating to the art and science of medicine and surgery, it is clear that wherever professional instruction is required, it must be instruction in those subjects which are included in the field of medicine and surgery.

* * *

It is felt that, in the Business and Professions Code, the California Code Commission has accomplished much in the field of clarification and orderly presentation of subject matter. Mr. Fred B. Wood, Secretary to the Code Commission, and Mr. Arthur McHenry, Statute Reviser for the Code Commission, devoted a great deal of time and effort to the preparation of the chapter on medicine. Their work has been carefully and skillfully done, and, in the years to come, will, without doubt, be fully appreciated, particularly by physicians who will be governed by the Business and Professions Code in the conduct of their profession, and by those of us who find it necessary constantly to study statutory provisions relating to the practice of medicine.

† Editor's Note.—This department of California and Western Medicine, containing copy submitted by Hartley F. Peart, Esq., will contain excerpts from and syllabi of recent decisions and analyses of legal points and procedures of interest to the profession.

* Editor's Note.—Law becomes operative on August 27, 1937.

SPECIAL ARTICLES

SOCIAL SECURITY ACT

Concerning Employees of Physicians

Operators of private laboratories, private sanitariums, and physicians employing one or more were advised today by Commissioner of Internal Revenue Guy T. Helvering to make immediate tax returns as required under the provisions of Titles VIII and IX of the Social Security Act to avoid further payment of drastic penalties which are now accruing.

Commissioner Helvering pointed out that every person employed in such work came under the provisions of Title VIII, which imposes an income tax on the wages of every taxable individual and an excise tax on the payroll of every employer of one or more. This tax is payable monthly at the office of the Collector of Internal Revenue. The present rate for employer and employee alike is 1 per cent of the taxable wages paid and received.

Under Title IX of the Act, employers of eight or more persons must pay an excise tax on their annual payroll. This tax went into effect on January 1, 1936, and tax payments were due from the employers, and the employers alone, at the office of the Collector of Internal Revenue on the first of this year. This tax is payable annually, although the employer may elect to pay it in regular quarterly installments.

The employer is held responsible for the collection of his employee's tax under Title VIII, the Commissioner explained, and is required to collect it when the wages are paid the employee, whether it be weekly or semi-monthly. Once the employer makes the 1 per cent deduction from the employee's pay, he becomes the custodian of Federal funds and must account for them to the Bureau of Internal Revenue.

This is done, Mr. Helvering said, when the employer makes out Treasury Form SS-1, which, accompanied by the employee-employer tax, is filed during the month directly following the month in which the taxes were collected. All tax payments must be made at the office of the Collector of Internal Revenue in the district in which the employer's place of business is located.

Penalties for delinquencies are levied against the employer, not the employee, the Commissioner pointed out, and range from 5 per cent to 25 per cent of the tax due, depending on the period of delinquency. Criminal action may be taken against those who wilfully refuse to pay their taxes.

The employers of one or more are also required to file Treasury Forms SS-2 and SS-2a. Both are informational forms and must be filed at collectors' offices not later than next July 31, covering the first six months of the year. After that they are to be filed at regular quarterly intervals. Form SS-2 will show all the taxable wages paid to all employees and SS-2a the taxable wages paid each employee

Participation in a State unemployment compensation fund, approved by the Social Security Board, does not exempt employers from the excise tax under Title IX, Commissioner Helvering said. Nor does the fact that there is no State unemployment compensation fund relieve the employer of his Federal tax payments. In those states where an unemployment compensation fund has been approved, deductions up to 90 per cent of the Federal tax are allowed the employer who has already paid his state tax. These deductions are not allowed unless the state tax has been paid.

This tax is due in full from all employers in states having no approved fund. The rate for 1936 was 1 per cent of the total annual payroll containing eight or more employees, and for 1937 it is 2 per cent. The rate increases to 3 per cent in 1938 when it reaches its maximum. The annual returns are made on Treasury Form 940.

An employer who employs eight or more persons on each of twenty calendar days during a calendar year, each day being in a different calendar week, is liable to the tax. The same persons do not have to be employed during that period, nor do the hours of employment have to be the same.

Actual money, when paid as wages, is not the sole basis on which the tax is levied. Goods, clothing, lodging, if a part of compensation for services, are wages and a fair and reasonable value must be arrived at and become subject to the tax.

Commissions on sales, bonuses, and premiums on insurance are wages and taxable.

Officers of corporations whether or not receiving compensation are considered employees for the purpose of taxation.

Wages paid during sick leave or vacation, or at dismissal are taxable.

Traveling expenses required by salesmen are not wages if the salesmen account for, by receipts or otherwise, their reasonable expenditures. That part for which no accounting is made is construed as a wage and is taxable.

Exercise great care in filling out Treasury Forms SS-1 and 940. Directions are easy to follow and correct returns means no unnecessary delay.

BUREAU OF EPIDEMIOLOGY: CALIFORNIA STATE DEPARTMENT OF PUBLIC HEALTH

Report for the Month of June, 1937.

The following report represents the activities of the Bureau of Epidemiology of the California State Department of Public Health during the month of June, 1937:

EPIDEMIOLOGICAL INVESTIGATIONS

1. *Food Poisoning.*—Fourteen cases in Fresno County were investigated at the request of the Health Officer. All had attended a school picnic celebrating the close of school. All had symptoms of acute food poisoning and bacillary dysentery. Food eaten was brought from the home of each of the children. Potato salad seemed to be the food involved. This salad was from six different places, making it difficult to definitely determine the source as no food was available for laboratory examination.

2. *Food Poisoning.*—Ten cases with three deaths in one family group were investigated at the request of the Fresno County Health Officer. All clinically had bacillary dysentery. Blood was obtained from two and agglutination reactions indicated that they were bacillary dysentery. As the family was living under insanitary conditions there was considerable evidence that the various members of the family contracted the disease either direct by contact or through the agency of flies.

3. *Food Poisoning.*—In running down the source of food poisoning in a boy scouts camp in Santa Barbara County a meat packing company in Los Angeles was investigated. The plant was found to be handling food products in a very sanitary manner.

4. *Jaundice, Epidemic.*—The investigation as to the cause of the outbreak of epidemic jaundice in an Eldorado County school in May was continued. The Bureau of Sanitary Inspection has been carrying on extensive trapping for rodents in the vicinity. Only a few new cases have developed since the last of May.

5. *Poliomyelitis.*—At the request of the Tulare County Health Department two cases were investigated. One was an adult migratory laborer, age twenty-two. His onset was May 28, and he had considerable paralysis. There were several slight illnesses in children in the family directly after his onset which may have been abortive attacks or due to other causes. The other case, a boy, age eight, had no contact with the previous case. The child had left Imperial County June 5 and arrived in Tulare County June 6, with onset June 9.

6. *Poliomyelitis.*—At the request of the Health Officer of Santa Barbara, a suspected case was investigated. The child, age three, was under treatment for lues and the question of differential diagnosis was brought up. There was considerable evidence that the case was a mild case of poliomyelitis.

7. *Rabies (Animal).*—A meeting was held of representatives of the various Los Angeles County health departments with the County Supervisors for the purpose of adopting methods of controlling rabies in the area.

Also the rabies problem was discussed with the City of Los Angeles officials, as well as the County of San Diego.

8. *Suspected Rocky Mountain Spotted Fever.*—At the request of the Health Officer of Fresno, a suspected case

was investigated. The patient, a school teacher, had been on a fishing trip into Nevada, Idaho, Utah, and Arizona. When he returned he found a tick on his person. Four days later he ran a fever, headache, pains in shoulders, back, and abdomen. When seen two days after onset there was no sign of rash. Case proved not to be spotted fever.

9. *Smallpox.*—A case in San Bernardino County was investigated. There was a question as to diagnosis. The case proved to be typical mild smallpox and there were evidences of missed cases in the neighborhood.

10. *Smallpox.*—At the request of the Health Officer of Pasadena, several cases were investigated. Contacts of the first case came down with the disease, having been vaccinated too late after exposure.

11. *Smallpox.*—At the request of the Health Officer of Pasadena, a case under question as to diagnosis was investigated. The distribution was quite unusual but the lesions were typical of smallpox. In running down the source of infection several unrecognized cases were found.

12. *Typhoid Fever.*—Two cases in Tulare County were investigated. There was no connection between the two cases. Both were in rural territory and both were living under insanitary conditions conducive to the spread of the disease. Laboratory work was done on all contacts but no carrier was discovered.

13. *Typhoid Fever.*—Two cases in Sutter County were investigated. One was a baby six months old. Check of contacts revealed no possible carrier. The other case was in a woman whose onset was just a few days before termination of a normal pregnancy. No possible source of infection was discovered.

14. *Typhoid Fever.*—A case in Yuba County was investigated. The patient had been living in a tent on the Yuba River bank and had been drinking raw river water, although the water was subject to considerable contamination. This was undoubtedly the source of her infection.

15. *Typhoid Fever Carriers.*—Two known carriers in Marin County were visited in order to check up on their activities and sanitary conditions. One had moved to San Francisco.

16. *Typhus Fever.*—A mild case in Los Angeles was investigated. The case, a man employed in a packing house in the industrial portion of the city, gave a history of flea bites and onset six days later. Rats were on the premises of the place of employment.

17. *Undulant Fever.*—At the request of the Health Officer of Fresno, a case was investigated. The patient had been under treatment for several years for tuberculosis. Recently an agglutination reaction was obtained for undulant fever. Undoubtedly her onset dates back at least one year while she was living in the southern part of the State.

MISCELLANEOUS

At the request of the Fresno County Health Department, a survey was made of their methods of morbidity records and suggestions were made as to improvement in the system so that records would be more readily available for statistical purposes and at the same time not add unnecessary duties to the present staff.

MALARIA SURVEY

An extensive survey of the old malaria areas of the State was made in conjunction with representatives of the United States Public Health Service, the Bureau of Sanitary Engineering, and the Division of Entomology and Parasitology of the University of California. Areas around Sacramento, Fair Oaks, Roseville, Lincoln, Penryn, Marysville, Oroville, Yuba City, Los Molinos, Redding, Stockton, Lodi, Modesto, Bakersfield, Arvin, Fresno, Visalia, Porterville, Lindsay, Friant Dam, and Yosemite Valley were surveyed as possible mosquito breeding sites. Evidences of anopheles mosquitoes were hunted and methods of malaria control, especially spraying, were investigated.

PSITTACOSIS CONTROL

During the month of June, 1,532 shell parrakeets and 249 other psittacine birds were shipped out of this State. In addition to the fifteen investigations involved in the inspections for checking the above shipments, eighty-six aviaries were inspected.

IMMUNIZATIONS

Typhoid immunization was continued among the migratory workers. A total of 2,182 injections were administered in Kings, Tulare, and Kern counties. In Tulare County 462 persons completed the three doses and eighty-six in Kern County. The summary of the immunizations will be presented next month as all of the reports have not been received.

COMMUNICABLE DISEASE REPORTS

Table 1 represents the incidence of reportable diseases during the month of June, 1935, 1936, and 1937. There were four weeks during the months in 1935 and 1936 and five weeks in 1937:

TABLE 1.—*Incidence of Reportable Diseases in California*
(For Months of June, in Years 1935, 1936 and 1937)

Disease	June 1937	June 1936	June 1935
Actinomycosis	1	..	2
Anthrax	..	..	..
Beriberi	1	1	..
Botulism	..	..	..
Chancroid	3	..	..
Chickenpox	2,989	1,390	2,688
Cholera	..	..	..
Coccidioidal granuloma	6	5	2
Dengue	1	..	..
Diphtheria	157	127	135
Dysentery (amebic)	18	8	15
Dysentery (bacillary)	58	15	17
Encephalitis (epidemic)	4	..	2
Erysipelas	85	78	72
Food poisoning	97	89	193
German measles	114	707	2,410
Glanders	..	..	..
Gonococcus infection	1,392	813	880
Hookworm	..	1	6
Influenza	2,375	2,251	117
Jaundice (epidemic)	5	..	..
Leprosy	..	1	2
Malaria	14	10	4
Measles	1,239	5,611	4,542
Meningitis (epidemic)	17	19	22
Mumps	2,123	2,492	942
Ophthalmia neonatorum	1	1	3
Paratyphoid fever	6	6	4
Pellagra	10	14	18
Plague	..	..	..
Pneumonia (lobar)	212	261	214
Poliomyelitis	34	17	91
Psittacosis	..	..	..
Rabies (human)	1	..	..
Rabies (animal)	242	95	94
Relapsing fever	..	..	1
Rocky Mountain spotted fever	2	1	6
Scarlet fever	764	1,049	694
Septic sore throat	4	9	43
Smallpox	75	13	50
Syphilis	1,356	863	984
Tetanus	5	5	8
Trachoma	19	10	5
Trichinosis	1	3	2
Tuberculosis	705	616	670
Tularemia	2	3	3
Typhoid fever	37	69	41
Typhus fever	..	2	..
Undulent fever	18	18	18
Whooping cough	2,506	1,532	644
Yaws	..	..	..
Yellow fever	..	..	..
Totals	16,699	18,205	15,644

An increase for this season of the year is noted in chickenpox, diphtheria and whooping cough, even though there has been some decrease since early spring. Rabies is decidedly epidemic in some sections of the State, notably in Los Angeles County. The increase in the reports of gonorrhea and syphilis is due to the activities of the Bureau of Venereal Diseases, particularly to the letter sent to each physician and osteopath in the State supplying the new card and urging their coöperation in reporting cases under their care.

Respectfully submitted,

HARLIN L. WYNND, M. D.,
Chief, Bureau of Epidemiology.

CALIFORNIA STATE DEPARTMENT OF PUBLIC HEALTH *

Report to Governor's Council

1. Bureau of Administration

Activities of the Director

The regular monthly meeting of the State Board of Public Health was attended May 2 and the annual meeting of the California State Medical Association was attended the following day. Most of the month was spent in the northern part of the State. At conferences held with the Director the following subjects were discussed. Legislation pertaining to the control of venereal diseases; prosecution of food violation cases in local courts; survey of rodents in mountainous districts; the proposed organization of a bureau of industrial hygiene; the training of sanitary inspectors; organization of whole-time county health units; the enforcement of the Cannery Act; the issuance of permits to operate oyster beds; the education of nurses; the control of rabies; dental hygiene; diagnostic clinics for crippled children; the proper labeling of canned dog foods; sewage disposal, and water supply.

2. Bureau of Epidemiology

Food Poisoning

With the beginning of warm weather, the occurrence of outbreaks of food poisoning began. Groups of cases involving nine persons in Santa Clara County, thirty-five in San Bernardino County and seventeen in Madera County were reported. It would seem that all of these outbreaks were due to the use of cold meats improperly refrigerated. The causative organisms were demonstrated in two of the outbreaks; in the other outbreak, no food like that consumed was available for laboratory study.

Epidemic Jaundice

An outbreak of this disease involving twenty-five or thirty pupils in a rural school of Eldorado County was investigated. . . .

Animal Rabies

Investigations in rabies and its control were made during the month. Rabies is exceptionally prevalent in Los Angeles City and County and in other portions of Southern California. During the week ending May 21, twenty-five rabid animals were reported in Los Angeles City and a marked increase in the number of rabid animals was noted in Los Angeles County. At the present time, more than one hundred individuals in the county are taking the Pasteur treatment. Local quarantines have been imposed in an effort to curb the spread of the disease.

Smallpox

Investigations into the prevalence of smallpox were made in Modoc, Lassen, and Riverside counties. Vaccination clinics were held in an effort to immunize as many school children and contacts as possible.

Because of the prevalence of smallpox in Siskiyou County, assistance was given in vaccinating school children. In ten different school districts, 710 children were vaccinated. A survey was made to determine the extent of vaccination in San Diego City and County. During the fiscal year, approximately 12,000 vaccinations were done in the city schools (public, parochial, and State College), and four thousand were done in the schools of the rural districts. It is expected another one thousand vaccinations will be performed during the month.

Typhoid Fever

Typhoid fever cases were investigated in Monterey, San Diego, Tulare, Fresno, and Santa Cruz counties. One case in a child was probably contracted outside of the State while the patient was visiting a relative in Kansas, who was determined by the Kansas State Health Department to be a typhoid carrier. Other cases involved swimming in a contaminated slough.

General Health Conditions

Chickenpox, mumps, smallpox, and whooping cough are more prevalent than usual. The number of cases of food poisoning reported show increases at the beginning of warm weather.

* By W. M. Dickie, M. D., Director of Public Health.

3. Sanitary Inspections

Rodent Survey

The rodent survey conducted by this bureau was carried on in sections of Stanislaus, Merced, Madera, Fresno, Placer, Eldorado, San Luis Obispo, and Santa Cruz counties. Among the rodents collected were common ground squirrels, golden mantled squirrels, tamarack squirrels, belding squirrels, chipmunks, white-footed field mice, flying squirrels, woodrats, shrews, house mice, ground hogs, rats, and rabbits. A total of 2,268 specimens was collected. Several thousand fleas were collected from the animals examined and sent to the laboratory.

Rodent Control Activities

The rodent control staff of the bureau inspected 18,226 acres of land and re-inspected 69,975 acres. Carbon bisulphide, grain poisoned with thallium and strychnin were used in control operations. Special investigations were made of the rodent situation in sections of the East Bay waterfront. Assistance was given in placing poisoned baits for the destruction of rats.

Stream Pollution

Investigations into stream pollution were made along Arcade Creek and American River in Sacramento County; Dry Creek in Placer County; Blue Jay, Dogwood, Hook, and Waterman creeks, and Santa Ana River in San Bernardino County; Pine, Los Angeles, Gorman, Gaviota, Mojoquin, and Yaca creeks in Santa Barbara County. Many other investigations into general sanitary conditions were carried on.

Highway Eating Places

Inspection of the following highway eating places and service stations were made during the month:

Number of eating places inspected and reinspected	61
Number found satisfactory	43
Number found with minor defects	13
Number found insanitary	5
Number of service stations inspected and reinspected	74
Number found satisfactory	56
Number found with minor defects	12
Number found insanitary	6

4. Division of Laboratories

Bacteriological Laboratory

Following is the diagnostic detail of examinations performed in this laboratory during May:

Slides prepared and examined for the diagnosis of diphtheria, tuberculosis, gonorrhea, malaria, rabies, culture identifications	4,064
Plate cultures made, examined and selected colonies transplanted during examination for typhoid, paratyphoid, dysentery, food poisoning, plague, unknown determinations, etc.	775
Culture tubes inoculated (fluid and solid media) for testing sugar reactions and other cultural characteristics during identification of unknown cultures isolated in blood, stool and food examinations and sent in by other laboratories	888
Animal inoculations for virulence tests, Kellogg tests, tuberculosis of kidneys, meningitis, standardizing vaccines, making immune serums, etc.	588
Precipitation tests, principally for syphilis	4,356
Complement fixation tests, principally for syphilis, but also for identification of cultures and immune serums	4,579
Agglutination tests, each one involving the making of eight different serum dilutions, centrifuging and examining; required for Widal tests for typhoid, undulant fever, typhus, tularemia and for identification of cultures, etc.	560
Total of procedures	15,810
Number of cases represented	5,963

Biologics

The following biologics were made in the laboratory and distributed during May:

Vaccine issued by the Bacteriological Laboratory during the month of May, 1937:

Tripletyphoid	1,785 c.c.
Typhoid	4,560 c.c.

Agglutinating antigens:

Typhoid	265 c.c.
Paratyphoid Alpha	230 c.c.
Paratyphoid Beta	210 c.c.
Br. Abortus	58 c.c.
Tularense	4 c.c.

Antigen for diagnosis of syphilis:	
Kolmer	130 c.c.
Kahn	820 c.c.
Kline	11 c.c.
Antisera:	
Typhoid	4 c.c.
Paratyphoid Alpha	3 c.c.
Paratyphoid Beta	3 c.c.
Flexner dysentery	4 c.c.
H R Y dysentery	4 c.c.
Shiga dysentery	4 c.c.
Sonne dysentery	1 c.c.
Morgani	3 c.c.
Suipestifer	1 c.c.
Dispar	1 c.c.
Aertrycke	1 c.c.
Enteritidis	2 c.c.
Strong	1 c.c.
Aerogenes	1 c.c.
Amboceptor	52 c.c.
Tubes of culture media	252
Ophthalmia noenatorum prophylactic outfits distributed during the month of May, 1937:	
Number of ampoules	5,636

Chemical Laboratory

During May, 106 official samples and twenty-seven unofficial samples of foods were examined in this laboratory. Of the official samples, forty-three were determined as illegal and of the unofficial samples, sixteen were found illegal—a total of fifty-nine out of 133 submitted. Most of these examinations covered carbonated beverages, dog foods, jams, jellies, and pickles. Four miscellaneous food products were examined for State institutions.

Water and Sewage Laboratory

During May, thirty-eight bacterial examinations and thirty-four chemical examinations of water were made in this laboratory; in addition, ten bacterial examinations of oysters were made.

5. Food and Drug Inspections

Egg Products

Many inspections of dried egg products were made during the month of May. . . .

Dried Fruit

Inspections were made of packers of dried fruit in the San Joaquin Valley, particularly in Fresno, Kings, Tulare, Madera, Merced, and Stanislaus counties. . . .

Used Containers

Inspections were made of plants using second-hand containers such as beverage manufacturers, vinegar and oil packers, relish and catsup packers, and retail wine bottlers. Steps were taken to improve methods of bottle washing in commercial plants.

"On-Sale" Inspections

A large number of inspectors have been assigned to the "on-sale" inspections. Menus and winery advertisements were found to be generally correct and stocks on hand agree with items listed. The most common violation is the substitution of domestic Scotch type whiskey for the foreign product. In some places, carbonated wine is used in "champagne cocktails." There have been fewer violations noted in "on-sale" establishments.

Inspection of "Barrel-Houses"

Inspections of "barrel-houses" show many owners as unfamiliar with label requirements on California wines. Efforts are made to correct this situation.

Food Products Destroyed

Because of their unfitness for human consumption, large quantities of wine, figs, and raisins were destroyed during May. Such destruction was accomplished only after every effort had been made to salvage the products for human consumption.

Prosecutions

Seven prosecutions were conducted in local courts. These covered wine, whiskey, and cognac. Convictions were secured in all but one case. Fines ranged from $25 to $500.

6. Cannery Inspections

Tuna

A large tonnage of tuna was handled in packing plants during May. . . .

Spinach

May brought the end of the spinach season.

Peas

The packing of peas is growing in popularity with the California packers and the acreage devoted to growing this product is considerably higher.

Artichokes

The commercial packing of artichokes seems to be growing in popularity, probably due to public demand for this product.

Asparagus

The month of May is a heavy packing season for asparagus. All canners have agreed to cease operations on June 20. . . .

Summary

Among the food products packed under supervision of this bureau during May are the following: Animal food, artichokes, asparagus, beets, carrots, hominy, kidney beans, lima beans, mushrooms, olives, onions, peas, peas and carrots, pink beans, pork and beans, potatoes, puree, specialties, spinach, string beans, and vegetable salad.

7. Tuberculosis

Activities of the Chief

The following institutions were inspected by the chief of this bureau during May: Maryknoll, Monrovia; Santa Terrisita; Los Angeles General Hospital; Weimar Sanatorium; Imperial County Hospital; San Diego County Hospital; Olive View Sanatorium; San Bernardino County Hospital; San Francisco Hospital, and Pasadena Preventorium.

8. Child Hygiene

Activities of the Chief

A meeting was held with the southern section of the Professional Advisory Committee of the bureau at which the items on the proposed program for the Bureau of Child Hygiene during the coming fiscal year were discussed. A visit was made to the Mexican demonstration being conducted by this bureau in Southern California. Progress reports, statistical material and other reports were prepared during the month.

Pediatric Service

The pediatricians on the bureau staff conducted 203 conferences in forty-one counties during May. A total of 3,689 children were examined. In this group, 2,700 medical defects were discovered and referred to family physicians for correction. A total of 1,776 defects of hygiene were discussed with mothers. The medical staff vaccinated 193 children and immunized 412 against diphtheria. Pre-natal conferences were initiated in Humboldt, Placer, Santa Clara, and Santa Cruz counties.

Dental Service

A dentist was added to the bureau staff in April. During May, he made dental examinations in 1,673 children and gave educational talks before more than 1,300 children.

Nursing Service

The nursing service conducted by the bureau during May covered general and district supervision over the activities of migratory nurses, nurses working among Mexicans and those doing generalized service in the various counties. A large volume of work was accomplished by county nurses in Sierra, Calaveras, Modoc, Santa Barbara, Mariposa, Trinity, Lake, Kings, Tulare, Mono, Alpine, Lassen, Fresno, Madera, Imperial, and San Bernardino counties.

9. Registration of Nurses

Activities of the Chief

Routine activities have been heavy for this season of the year. Schools of nursing were surveyed in San Francisco and Fresno. Addresses were given before pre-nursing students at the Fresno State College.

Activities of Inspectors

Most of the month has been devoted to making studies of facilities in teaching special diets in the various schools of nursing. Conferences were held at hospitals in San Francisco, San Jose, Alameda County and Stockton.

10. Sanitary Engineering

The principal items of work of the engineers of the bureau, now numbering three, were a compilation of the utilization of sewage sludge; further work in a fluorin survey of wells in the Twenty-Nine Palms area; and one member of the staff has spent most of the month in attendance at a school in occupational hygiene in anticipation that such work may be undertaken in California.

The first item was a compilation of the utilization of sewage sludge in the two hundred or more sewage treatment plants in the State which produce sludge. The information is part of a nationwide canvass by an important committee of the American Public Health Association. The findings for California revealed that practically every city makes fertilizer use of its sludge, though only a comparatively small number carry on the use of the sludge on a business-like or profit-making basis, and none used sludge on vegetables.

Further work was done in a fluorin survey of wells in the Twenty-Nine Palms area, the result of which was the finding that the wells above a certain underground dike were the lowest in fluorin and the water could be used with comparative safety. Below this dike the wells take on a gradually increasing amount of fluorin and all the wells below the dike were seriously high in fluorin content. The subject is to be followed up further with a view to investigating possibilities of removing the fluorin by household devices.

A detailed report is as follows:

Sewage Disposal

New Projects

Orange County, which many years ago abandoned local disposal for a unified outfall to the ocean, driven to the scheme by nuisance from local sewer farms, is torn by debate over return to local disposal. There are eight large communities involved. It is a momentous decision. The bureau has been consulted in passing on the site proposed for local treatment at two of the places—Orange and Fullerton.

Placerville is about to vote on a bond issue for a long delayed cleanup of Hangtown Creek, which passes through the city and into which myriads of sewers have been emptying for generations. Healdsburg has voted bonds for a fairly comprehensive project which will abate a long standing case of stream pollution. It is understood that Napa is also looking into the possibility of such a project. The community of Newhall is also investigating a possible sewer system and sewage disposal and the bureau has been consulting with their local engineer in evolving the project.

Covina is reviving an effort to obtain a sewer system and sewage disposal and at the moment is considering building an elaborate sewage treatment plant underground in the city park and disposing of the highly clarified effluent through filter tiles laid deep in the natural soil. The bureau also conferred with the engineer at Murrietta Hot Springs and blocked out a scheme of sewage treatment for this resort. Advice was given the East Bay Recreational Department in a sewage treatment plant for its Wild Cat Canyon Camp. A scheme of improvements to sewage disposal was also discussed with the consulting engineer of the City of Needles. The bureau also advised the local citizens in the scheme of sewage disposal for an unincorporated area outside of Oroville and gave advice on procedure to organize a district. Big Bear Lake was investigated from the standpoint of the effect of high lake level on the scheme of sewage treatment should this area go ahead with a sewer system. Advice was given on a scheme of sewage disposal for a large subdivision in the vicinity of Lafayette. Conferences were held with the county health officer over a unified sewer system for Crockett. A site for disposal of wastes from a reduction plant was investigated at Brawley. Attended a conference with the City Council of Imperial over the elements of a sewage treatment plant which might avoid necessity of a long sewer to New River. Basis of design for sewage trickling filter for Stockton State Farm was discussed with the State architect.

Advice was given the State Park Commission in the matter of temporary improvements to sewage disposal at Big Basin which would fit into a permanent construction which it is expected may be undertaken within the next year. Advice was also given in sewage disposal of a large roadside place at Grapevine on the Ridge Route. Application for permit has been received from Orange for the construction of an activated sludge plant on San Gabriel River; also from the City of Hemet to dispose of sewage for irrigation in the vicinity of the sewer farm.

Plans were reviewed for a sewer outfall for a new trickling filter plant at Modesto and at Imhoff tank with various types of disposal for resettlement camps at Winters, Marysville, Shafter, Coachella, and Arvin. New sewage treatment plant recently completed at Stockton was inspected.

Complaints

Complaints were received against overflowing cesspools at Hemet and request for help in improving sanitation in San Lorenzo River. A complaint was received also from the water company at Coronado against the location of the proposed sewer from Tiajuana which would pass somewhere near the wells.

It is understood that on account of the introduction of a new cracking plant for gasoline in the Santa Fe oil fields, there has been an extensive odor nuisance along the drain line from this oil field to the ocean. However, complaints have not reached this department.

Special Mention

The beach at Monterey was inspected from the standpoint of noting the cleanup accomplished by the removal of the city sewer from its old location to another one nearly a mile away. It was observed that there is still faeces on the beach though not to the extent as formerly, probably due to toilets on the small boats in the harbor or possibly to toilets on the wharves, and the beach was badly littered with garbage-like refuse, broken glass and flotsam brought in by the tides. The beach at Carmel was also inspected. Here the sewage, once retained in tanks and discharged periodically, is allowed to spew onto the beach continuously. This particular beach is not used to great extent but on the date of inspection, several parties were picnicking there.

These are the first of numerous inspections the bureau expects to undertake in the next year or so in order to comply with a request from the State Assembly for a report on instances of beach and stream pollution up and down the State.

An interesting meeting was attended in which the subject of mountain sanitation in Los Angeles County was discussed by the county health department. Hundreds of analyses of water were made on the streams and it is encouraging to note that in spite of the tremendous increase in the crowds flocking to the mountains, the analytical evidence is that pollution is held down so that there is little difference between streams above the recreational area and points on the stream below. The accomplishment is clearly the work of endless preaching and education of recreationists in behalf of conserving the streams against pollution.

Water

New Projects

Antioch is about to add some additional filters and has discussed with the bureau the elimination of cross-connections which would admit raw water into the filtered water system. Various conferences have been held with the State engineer's office over new water supply for Napa State Hospital and Veterans Home; also with the Highway Department over improvements to their well supply at Marysville headquarters. An inquiry was received from Beverly Hills over approving certain reservoir improvements in accordance with the requirement of the Public Works Administration.

Complaints

Considerable time was spent in an effort to adjust complaints by the City Health Department of Los Angeles against the city water supply. A case of resort pollution of White Water River at the headworks of the Palm Springs irrigation system was investigated with the county health officer and various procedures blocked out, one

depending on an attempt to clean up the sanitation at the resort and the other utilizing the river sands for artificial improvement of the water.

Certain wells in Eldorado County were investigated in connection with the occurrence of jaundice epidemic in a school, and conclusion pretty well reached that the trouble was due to mice and rats which fell into the water.

Special Mention

A problem over water supply for the Resettlement Camp at Brawley has been solved by an agreement to compensate the city in an amount which will build an additional filter at the city waterworks and supply filtered water instead of simply settled water to this camp. The water supply in Palm Springs was investigated in connection with the complaint against conditions on White Water River. A perplexing problem has been raised by the San Francisco Water Department over the matter of various cross-connections within hotels and office buildings. The situation became noticeable in connection with the recent hotel employees strike in which new workmen came on, not familiar with the hotel piping, and, of course, wrong manipulation of the valves was a serious threat to the purity of the drinking water.

Conference was held with the engineers for the San Francisco Exposition over the avoidance of proposed cross-connection with bay waters for fire fighting purposes. The investigation into fluorids in the Twenty-Nine Palms area has already been referred to. The water supply at Oasis was resampled and inspected in connection with certification as analyses indicate that pollution is going on somewhere.

Mosquitoes

A visit was made to San Mateo County and South San Francisco in connection with mosquito abatement.

Shellfish

Oyster beds in Tomales Bay were investigated in connection with a recent quarantine, by the San Francisco Health Department, of oysters from several miles of bay shore, seemingly of virgin purity. The findings were confirmed that in certain parts of the bed the oysters are pretty badly affected with Staphylococcus aureus and the oysters, though not spoiled, are decidedly unfit for food. Other oyster beds in which the taking of oysters was stopped last winter, were reinspected and resampled with a view to lifting the restriction. The watershed of Drakes Bay was also gone over thoroughly, seeking out pollution that might affect extensive layings in Drakes Bay. The City Health Department of San Francisco has also quarantined clams from an area in Sobrante. Investigations were started to try to clear up this situation.

Swimming Pools

Numerous inquiries continue to be received almost every day for information and literature on swimming pools. A conference was held over trying to raise the standards of swimming places in Contra Costa County. Help was also given the Berkeley Women's City Club on account of excess chlorin.

Laboratory

On routine samples run in the laboratory, opinions were rendered on thirty-eight samples analyzed for bacteria and thirty-four samples for chemical tests involving 271 determinations, and ten samples of oysters involving forty determinations.

11. Vital Statistics

Marriage Increase

The first three months of 1937 show increased numbers of marriages over a corresponding period of last year. Following is the statistical detail:

	1936	1937
Total—first three months	12,218	12,836
January	4,201	4,409
February	4,058	4,000
March	3,959	4,427

Births

There were 633 more births registered in the State during January of 1937 than in January of 1936. In the first month of the present year, there were 7,212 births recorded while during the corresponding month of last year, there were 6,579 such events registered.

CAN COUNTY MEDICAL SOCIETIES DISCIPLINE MEMBERS?

A decision recently handed down by the Supreme Court of the State of Washington has been much discussed and is given below for readers who are interested in the principles involved:

Porter et al., vs. King County Medical Society et al.

No. 25862

SUPREME COURT OF WASHINGTON

[1] Trade-marks and trade-names and unfair competition.—Employee has no right of action against employer's competitor engaging in same business by using same means as employer.

[2] Master and servant.—Business manager employed by physicians operating clinic *held* to have no cause of action against medical society or competing clinic organized by such society because defendants employed former clinic's best solicitor; solicitor having been employed under terminable contract.

[3] Physicians and surgeons.—Incorporated medical society's constitution, charter, and by-laws *held* to constitute contract between members enforceable by courts unless immoral or contrary to law or public policy; selfishness of society's objects being immaterial if legitimate.

[4] Physicians and surgeons.—Medical society *held* entitled to adopt by-law warranting expulsion of members unauthorizedly operating clinics or engaging in group contract practice; whether by-law was just, reasonable, or wise being question of policy concerning only society and its members.

[5] Physicians and surgeons.—Medical society in enforcing by-laws for direct purpose of benefit to itself and members *held* not answerable for damage incidentally resulting to third person.

[6] Physicians and surgeons.—Members of medical society *held* bound to obey its laws, rules, and regulations or be fined, suspended, or expelled.

[7] Master and servant.—Business manager of clinic employed for unlimited term by physicians who, to avoid expulsion from medical society pursuant to by-law, were compelled to abandon their clinical and group contract practice *held* to have no cause of action for damages against society or its competing clinic.

Department Two.

Appeal from Superior Court, King County; J. T. Ronald, Judge.

Action by Frank G. Porter and others against the King County Medical Society, a corporation, and others. From a judgment of dismissal, plaintiffs appeal.

Affirmed.

Charles H. Graves, of Seattle, for appellants.

Charles F. Riddell, of Seattle, for respondents.

MILLARD, Chief Justice.

This action was instituted against the King County Medical Society, a corporation, the King County Medical Service Corporation, and certain officers, trustees, and members of the two corporations to recover damages alleged to have been sustained by the plaintiffs by reason of defendants having induced Doctors Ralph L. Sweet and Goff MacKinnon, members of the King County Medical Society, copartners, who were doing business as the Associated Physicians Clinic, to breach a contract existing between the plaintiffs and the copartnership.

The appeal is from the judgment of dismissal rendered upon the plaintiff's' refusal to plead further after a demurrer had been sustained to the complaint, upon the ground that the same failed to state facts sufficient to constitute a cause of action.

The allegations of the complaint are summarized as follows:

The King County Medical Society, a domestic corporation, is one of the constituent societies of the Washington State Medical Association, which in turn is one of the constituent societies of the American Medical Association. The King County Medical Service Corporation is a subsidiary of the King County Medical Society. The individual respondents, physicians and surgeons of Seattle, are officers, trustees, and members of either one or both the King County Medical Society and the King County Medical Service Corporation. The major portion of the practicing physicians and surgeons of King County are members of the King County Medical Society. That society, through its affiliation with the various county associations and State associations, virtually dictates and controls the policies of the medical profession and its functions and practices in

King County and dominates and controls all the accredited hospitals in King County. The King County Medical Society, through the power of its organization and activities, has created for its members a virtual monopoly of the medical profession and practice in King County, and has thereby established for its members an exorbitant schedule of fees and charges which are exacted from those requiring medical and hospital treatment. The society dominates and controls the individual business affairs and professional practice of its own members, and by threats of expulsion and other similar methods it infringes upon the right of its members to conduct their own affairs and profession as they see fit.

Within the last twelve years, individual physicians and a few groups of physicians, all active members of the King County Medical Society, organized, independently of the society, " * * * 'group medical service clinics' whereby groups of individuals and employees * * * enter into specific contracts with said clinics whereby upon payment of nominal monthly dues or fees, they are entitled to receive and do receive all necessary medical, surgical, and hospital care and treatment in case of sickness or disability. * * * "

Among the clinics thus organized in King County was the Associated Physicians Clinic, organized about twelve years ago by Doctors Sweet and MacKinnon, members in good standing of the King County Medical Society. Until September 1, 1934, these two physicians were engaged in the group medical contract practice through contracts with many large business firms of Seattle, "whereunder they furnished medical and surgical care and hospitalization to a large number of employees of such firms at the rate of one dollar per month per capita, and that virtually all of said contracts were secured for the said Associated Physicians Clinic by the plaintiff, Frank G. Porter, as particularly hereinafter set forth."

Approximately six years ago, Doctors Sweet and MacKinnon, by a written contract for an unlimited term with Frank G. Porter, employed him "as manager of their contract department to conduct generally the business end of the said clinic, particularly in securing new medical contracts for the same, to make collections of all monthly fees or dues thereunder, to furnish and maintain first-aid kits for all firms and companies under contract, to service and maintain all of said group contracts and to adjust all complaints or disagreements that might arise concerning the same; that in consideration for his said services, said agreement provided that the plaintiff, Frank G. Porter, should have and receive a sum equal to twenty-five per cent (25%) of all gross sums received upon said group service contracts; the balance thereof or seventy-five per cent (75%) of the gross going to said Associated Physicians Clinic."

At all times since the organization of such independent clinics as the one organized by Doctors Sweet and MacKinnon, the individual respondents and the King County Medical Society and a majority of its members "have been opposed to such group contract practice, in that it tended to injure the monopoly enjoyed by the society and its members in the medical profession and practice, and tended to deprive members of the society of much of their exorbitant and excessive fee practice."

About two years ago the respondents entered upon a definite, concerted campaign to destroy such contract practice, and began to harass all of said clinics on the ground that such practice was unethical. The respondents demanded that Doctors Sweet and MacKinnon and other physicians engaged in such practice abandon same. In September, 1934, Doctors Sweet and MacKinnon and the other physicians engaged in such practice were forced to abandon the same as the direct result of a conspiracy by the respondents, "all as particularly hereinafter set forth."

In order to accomplish their purpose, the King County Medical Society and the other respondents proceeded as follows:

(1) The King County Medical Society organized its own group clinic on April 7, 1933, under the corporate name of the King County Medical Service Corporation. This clinic was in all respects identical in its plan and operation with that of the Associated Physicians Clinic and the other independent clinics.

(2) The respondents employed and took away from appellants their oldest and most experienced assistant, who was familiar with all of appellants' records and with all of the then existing contracts which appellant's husband had secured for the Associated Physicians Clinic pursuant to his agreement with that clinic. This assistant, in the employ of the respondent King County Medical Service Corporation, with such knowledge of the business of the Associated Physicians Clinic, solicited the firms and companies which appellant Porter had placed under contract with the Associated Physicians Clinic and succeeded in inducing many of such contract holders to withdraw from their contracts and take new and similar contracts with the King County Medical Service Corporation.

(3) On August 7, 1933, the respondents procured the adoption by the King County Medical Society of an amendment to the by-laws which amendment is marked Exhibit A and attached to the complaint. The amendment provides that all charges against a member of the King County Medical Society shall be made in writing to the board of trustees. The charges shall be investigated by the board at its discretion. The accused shall be given the privilege of a hearing before the board, and if the charges are found to be of sufficient moment, the charges shall, at the discretion of the board, be reported to the society with a recommendation for action. The by-law then provides:

"A member who has been found guilty of a criminal offense or of gross misconduct, either as a physician or as a citizen; or whose license to practice medicine in this state has been revoked or suspended by the State Board of Examiners; or who has committed any act which may be derogatory to the medical profession; or who shall refuse or neglect to obey the regulations of this society, or who knowingly gives false testimony as an ordinary or expert witness; or who has violated any of the provisions of these by-laws; or who shall violate the code of ethics of the American Medical Association as the same is now written, or as it may hereafter be changed; or who shall be guilty of any disloyal, seditious or treasonable utterance, writing or act against the United States, or who shall engage in contract practice unless the same shall previously have been authorized by the Board of Trustees of this Society, or who as physician or surgeon shall serve on the staff of or perform work for the patients of, or shall perform work in any institution or group or organization unless such services or work shall previously have been authorized by the Board of Trustees of this Society, shall be liable to censure, suspension or expulsion. Censure, suspension or expulsion shall require a two-thirds affirmative vote of the members present and voting at a regular meeting. Written notice of the charges preferred must be given to the accused, and to each member of the society, ten days in advance of such meeting. Opportunity for the accused to be heard in his own defense shall be given before a vote of the Society is taken on his censure, suspension or expulsion.

"A member under suspension may be reinstated to active membership by a two-thirds affirmative vote of members present and voting at a regular meeting."

(4) Soon after the passage of the aforesaid amendment to the by-laws, the society threatened the expulsion of Doctors Sweet and MacKinnon unless they abandoned their contract practice, including their contract with appellant Porter, as well as all contracts covering their group service with their patients. The society further demanded of the two doctors that they surrender and turn over to the society and to its subsidiary clinic, the King County Medical Corporation, all of their books and records in connection with their said contract practice as the Associated Physicians Clinic, "all of which Doctors Sweet and MacKinnon, at first, failed and refused to do."

(5) On March 19, 1934, respondent Arthur C. Crookall, a leading member of the King County Medical Society, filed written charges, signed by thirty members of the medical society, "charging said Doctors Sweet and MacKinnon with unethical conduct under said by-law's amendment, on account of their continuing to engage in a medical service contract practice not authorized by the Board of Trustees of said Society, in defiance of the said by-law amendment, and which resolution demanded that the Board of Trustees of the society carry out the necessary action to deprive Doctors Sweet and MacKinnon of membership in the society and urgently requesting said trustees to take prompt and drastic action against said physicians Sweet and MacKinnon without compromise; a true copy of which resolution is herewith attached, marked Exhibit 'B' and made a part of this complaint. That said resolution was adopted and approved by said society, and thereupon the defendants served upon Doctors Sweet and MacKinnon notice of the charges against them and the terms of said resolution, and then cited said physicians to appear before the society to show cause, if any they had, why they should not be expelled from membership in said society."

By reason of the filing of the charges and because of the action it was known the respondent medical society would take against them, Doctors Sweet and MacKinnon, on September 1, 1934, abandoned their contract with appellant Porter.

At the commencement of appellant Porter's services with Doctors Sweet and MacKinnon, the volume of their contract practice was relatively small. During the ensuing six years, the appellant Porter, through his service, industry, and organization, increased and built up the contract practice of the Associated Physicians Clinic to large proportions.

" * * * That at the beginning of the wrongful attacks upon said clinic by the defendants, as aforesaid, he had increased its practice to the extent of having approximately one hundred firms or companies under contract therewith and was servicing in excess of two thousand of their employees, yielding a gross sum or revenue of over two thousand dollars ($2,000.00) per month, one fourth of which being received by the plaintiff under and by virtue of his said contract; that by reason thereof and a result of his own labor and industry, as aforesaid he had created in and given to his said contract a high and lasting value, as well as making same correspondingly valuable to Doctors Sweet and MacKinnon, and which, but for the wrongful acts of the defendants, as hereinbefore stated, would have become increasingly valuable to plaintiff for many years to come."

[1] We do not understand that appellants seriously contend that the organization of the King County Medical Service Corporation by the King County Medical Society as a competitor of the Associated Physicians Clinic would constitute a cause of action against the respondent corporations and the other respondents who are officers and members of the two corporations. An employee has no right of action against an individual or a group of individuals who organize to compete with his employer and to engage in the same business by the use of the same means which his employer uses.

[2] We agree with counsel for respondents that the only ones (if any one may) who may complain of the competition of respondents with the business of Doctors Sweet and MacKinnon are the doctors named. Appellants have no cause of action against respondents because the latter employed appellants' best solicitor. Appellants' solicitor was employed under a terminable contract. That being so, the employment of that solicitor by respondents does not constitute a cause of action in favor of appellants. *J. J. Case Threshing Machine Company* vs. *Fisher & Aney,* 144 Iowa, 45, 122 N. W. 575.

[3-6] It is unnecessary to discuss the question of whether the character of the medical contract service is ethical or unethical. Doctors Sweet and MacKinnon were members of the medical society twelve years ago and have been continuously members ever since that time. The constitution, charter, and by-laws of the medical society constitute a contract between the members of the society which the courts will enforce if not immoral or contrary to public policy or the law of the land. (16 R. C. L. 422.) That is to say, Doctors Sweet and MacKinnon, under their contract with the medical society, were required to obey the by-laws of the society or by breach thereof subject themselves to the penalty of suspension or expulsion from the society. It is not at all material how selfish or unselfish the objects of the medical society are if same are legitimate. It cannot be successfully contended that the medical society did not have the right to adopt the by-law in question. Whether such by-law or rule was just, reasonable, or wise is a question of policy which concerns only the medical society and its members. The medical society, in the enforcement of its by-laws for the direct purpose of benefit to itself and to its members, is not answerable for damage incidentally resulting to a third person. So long as one remains a member of the medical society, such member can be compelled under his contract with the society to obey the laws, rules and regulations of the society or suffer the penalty of fine, suspension, or expulsion. The rule that the enforcement of a by-law such as the one involved in the case at bar does not constitute coercion is sustained in *Seymour Ruff & Sons, Inc.,* vs. *Bricklayers,' etc., Union,* 163 Md. 687, 164 A. 752, 757, where the court said:

"Whether an order of a union directing its members not to serve a particular employer is lawful is discussed in 16 R. C. L. 448, where it is said: 'In a number of decisions the question has been raised whether it is lawful for a labor union to order its employees not to serve a particular employer. One court has reached the conclusion that the imposition of fines upon members of a labor union to compel them to join a strike has the effect of intimidating such persons and is therefore unlawful. (*L. D. Willcutt, etc., Company* vs. *Driscoll,* 200 Mass. 110, 85 N. E. 897, 23 L.R.A. (N.S.) 1236.) But this conclusion is opposed to practically all of the decisions on the subject. The decisions are practically in harmony in holding that it is within the power of labor unions, and it is lawful for them, to instruct or order their members not to accept employment with an individual, or to continue in such person's employment, where the action of a union is justifiable in the sense that it is to promote the welfare of the members of the union. Accordingly, the enforcing of a by-law forbidding members of the union to serve one who has broken a contract with its members does not amount to intimidation. Neither a fine or other disciplinary action under such by-law would be unlawful as to members who voluntarily subject themselves to the provision of such by-law. They are left free to enter the employment of the prescribed employer, although practically they are compelled to choose between the benefits of such employment and membership in the union. (*Rhodes Bros. Company* vs. *Musicians' Protective Union Local No. 198, etc.,* 37 R. I. 281, 92 A. 641, L. R. A. 1915E, 1037 and notes.) Similarly, it has been decided that a labor union may lawfully order its members not to work on premises where work is being done by employers who are deemed to be unfair to union labor.'

"This question was also discussed in *McCarter* vs. *Baltimore Chamber of Commerce,* 126 Md. 131, 94 A. 541, 543, where reference was made to *Bohn Manufacturing Company* vs. *Hollis,* supra [54 Minn. 223, 55 N. W. 1119, 21 L.R.A. 337, 40 Am. St. Rep. 319], the facts of which were reviewed and the finding of the court approved in *Klingel's Pharmacy* vs. *Sharpe & Dohme,* supra [104 Md. 218, 64 A. 1029, 7 L. R. A. (N.S.) 976, 118 Am. St. Rep. 399, 9 Ann. Cas. 1184]. On the question as to whether the by-law providing for expulsion was coercive, the court said: 'But this involved no element of "coercion" or "intimidation," in the legal sense of those terms. * * * Nor was any coercion proposed to be brought to bear on the members of the association, to prevent them from trading with the plaintiff. After they received the notices, they would be at entire liberty to trade with plaintiff, or not, as they saw fit. By the provisions of the by-laws, if they traded with the plaintiff, they were liable to be "expelled"; but this simply meant to cease to be members. It was wholly a matter of their own free choice which they preferred—to trade with the plaintiff, or to continue members of the association.' "

In *Bohn Manufacturing Company* vs. *Hollis,* 54 Minn. 223, 55 N. W. 1119, 1120, 21 L. R. A. 337, 40 Am. St. Rep. 319, in which an association of lumber dealers was sued for incidental injury resulting to a third person, the court said: "They agree among themselves that they will not deal with any wholesale dealer or manufacturer who sells directly to customers, not dealers, at a point where a member of the association is doing business, and provide for notice being given to all their members whenever a wholesale dealer or manufacturer makes any such sale. That is the head and front of defendants' offense. * * * Nor was any coercion proposed to be brought to bear on the members of the association, to prevent them from trading with the plaintiff. After they received the notices, they would be at entire liberty to trade with plaintiff, or not, as they saw fit. By the provisions of the by-laws, if they traded with the plaintiff, they were liable to be 'expelled'; but this simply meant to cease to be members. It was wholly a matter of their own free choice, which they preferred—to trade with the plaintiff, or to continue members of the association."

To the same effect is *Booker & Kinnaird* vs. *Louisville Board of Fire Underwriters,* 188 Ky. 771, 224 S. W. 451, 454, 21 A. L. R. 531. That involved a case where an association of insurance men prohibited members from representing more than one company. The by-law was enforced and the offending company expelled. Its business was ruined. Whereupon it instituted an unsuccessful suit against the association. In the opinion in that case the court said:

"In other words, these by-laws oblige members of the board to confine their insurance business to companies who have board agents, and forbid members to give to or accept insurance business from non-board agents and thereby limit the business rights that agents who are members of the board might exercise if they were not members. * * *

"In almost every profession and every business there are associations or lodges or boards, organized by persons engaged in particular lines of industry or following certain professions, that have for their sole purpose the protection and promotion of the best interest of the business or profession in which they are engaged. And bodies like these, acting in a collective capacity, may, in a quiet orderly way when their interests demand it, refuse to deal with or have any business relations with any other person or persons they choose, although the effect of such combined action is to boycott the objectionable person, very much in the same way as the boycott put into effect in this case against Booker & Kinnaird.

"But this character of boycott does not fall under the condemnation of the law. If it did, no persons acting in concert for their own benefit could refuse to have business relations with or terminate their existing business relations with persons they have theretofore transacted business with. * * *

"Booker & Kinnaird have preferred to remain outside of the board and compete with its members, while at the same time insisting that the members shall resume business relations with them. In brief, it would appear that Booker & Kinnaird want to force the board members to renounce the board rules and regulations and deal with them, while the board members prefer to stand together and have no

business relations with Booker & Kinnaird. As I look at it, each of the parties is within their legal rights—one, in refusing to leave the board; the other, in refusing to return to it—and neither has any legal cause for complaint against the other. * * * The further effect would be to take from the members the right to expel any member who refused to observe the by-laws of the board, and the inevitable effect of all this would be the destruction of the board in so far as its usefulness as a business organization was concerned."

In *Cohn & Roth Electric Company* vs. *Bricklayers', etc., Local Union No. 1*, 92 Conn. 161, 101 A. 659, 660, 6 A.L.R. 887, the Supreme Court of Errors of Connecticut announced the rule as follows:

"These by-laws create an agreement on the part of these several unions and all of their members, binding upon them, that their members will not work for any employer employing nonunion men on that job, nor for any nonunion contractor, nor on any job sublet to any contractor by any open shop or nonunion contractor. Interpreted together, these several by-laws constitute an agreement, which membership imposed upon all members of defendant unions, that they would not work on any job on which nonunion men or employers are at work.

"All members of defendant unions have ceased to work and refused to work on any building when the nonunion employees of the plaintiff have commenced work on such building. * * *

"The end the defendants had in view by their by-laws was the strengthening of their unions. That was a legitimate end. There is no indication that the real purpose of the defendants was injury to the plaintiff, or the nonunion men it employed. Whatever injury was done the plaintiff was a consequence of trade competition, and an incident to a course of conduct by the defendants, begun and prosecuted for their own legitimate interests. The means adopted were lawful; no unlawful compulsion in act or word was present."

[7] The weight of authority is to the effect that in pursuing its legitimate objects an association has the right to coerce a member by fine, suspension, or expulsion, and the association will not, nor will its members be, liable in damages to those who may be directly or indirectly injured by such efforts. So long as a member remains in the association, he is subject to the coercive effect of a penalty exacted for breach of a by-law of the association. If he does not desire to abide by the obligations of his contract of membership, he may abandon his membership. No right of appellants, who were nonmembers, was invaded by respondent medical society when it established its code of ethics and insisted upon compliance therewith through threat of expulsion of an offending member. We agree with counsel for respondents that, viewed as an association engaged in promoting the interests of its membership, the enforcement of solidarity by threat of expulsion of one of its own members creates no cause of action for the incidental damage resulting to an employee of that member who has a contract of employment "for an unlimited term."

The judgment is affirmed.

Blake, Main, Holcomb, and Beals, JJ., concur.

PRESS CLIPPINGS

The daily press frequently print items having a direct or indirect relationship to medical practice. In the current issue some of such are given space for the information of readers.

Government Medicine

This momentous thing of putting the Federal Government into the medical field, now brought to a head by the President's direct proposals to the American Medical Association, is not going to be solved by any one simple prescription. The eventual remedy for maladjustment of medical facilities in this country will have to be worked out by joint consultation of the doctor, the patient and governing officials.

Physicians as a group, naturally, rebel at the idea of federalized medicine in any form. The more successful they are, the more they rebel. They contend that after the rigorous training required of a modern doctor he should not be regimented, like a worker in a pick-and-shovel relief gang, for government service.

The patient, too, despite the fact that he may at times lament the costs of a private physician, is loath in most cases to intrust himself and his family to the care of some salaried public doctor who he feels may not be as interested in his work as the private physician.

It is obvious, on the other hand, that the requirements of modern society for organized medical care are growing tremendously. County and city hospitals are taxed with the care of emergency cases that cannot, in common humanity, be rejected. There undoubtedly is something to the argument that this overflowing burden is becoming a concern of federal agencies.

The imperative requirement is that the solution be worked out so that neither the patient nor the physician will suffer an injustice. Senator Lewis in his reputedly blunt demand upon the Medical Association to consider itself as a government official smacks too strongly of ill-considered regimentation of the worst kind. Doctors cannot be ordered arbitrarily into federal service with any expectation of benefit to anybody.

Some development of the clinic idea, with rigid supervision by the Medical Association itself, may be the eventual solution. The poor must not be neglected. But they will not be aided by any policy which makes their doctors virtual "yes men" of political superiors.—Editorial, *Los Angeles Times*.

* * *

Charities Give Aid to Many

Total of 225,000 Get Help in County During Fiscal Year

Food, shelter and medical treatment were furnished to more than 225,000 residents of Los Angeles County by the County Department of Charities during the fiscal year ending June 30 last, according to a report on file yesterday in the office of Rex Thomson, superintendent of the county's welfare activities.

Major Divisions

The figures of the four major divisions of the department are as follows:

Bureau of indigent relief: Assistance provided 77,243 cases, representing approximately 154,000 individuals.

General Hospital: Medical treatment provided for 67,187 patients acutely ill.

County Farm: Medical treatment and ward care given 4,479 inmates incapacitated by chronic ailments and advanced age.

Olive View Sanatorium: Surgical treatment and ward care given 1,731 patients suffering from tuberculosis.

Cases Increase

The report from the burcau of indigent relief discloses an increase of 19.3 per cent in the case load because of the number of persons receiving aged and blind aid. This increase is largely due to the liberalization of the old age pension laws by the State Legislature.

More than 35,000 applications for aged and blind aid were received in two years. All were investigated by the bureau of indigent relief as required by the law.

During 1935-1936 a total of 8,645 cases were forwarded to the Board of Supervisors for approval. In the last twelve months this figure was increased to 17,419. At the end of the fiscal year only 3,300 applications remained incomplete, according to the report.

* * *

$87.50 Aid Cost Per Capita

516,440 Relief Clients Here Last Year

In 1925, indigent and unemployed relief costs in Los Angeles County were 92 cents per capita of taxpayers.

Now the cost is $87.50 per capita of taxpayers.

And, in a twelve months' period just ended, 2,046,614 persons—a large proportion of them indigent—flocked into California.

Rex Thomson, superintendent of charities, revealed this appalling situation in a report yesterday.

516,440 on Relief

For the year surveyed, ending last April 30, there were 516,440 persons in the county receiving relief of some kind from national, state, or county sources, he stated. This is equivalent of 19.36 per cent of the entire population here.

The percentage of reliefers dropped slightly less than 4 per cent below the totals for the preceding twelve months' period, but relief costs jumped $29.37 per taxpayer for the period, he declared.

Plea for U. S. Aid

Harry L. Hopkins, federal administrator, yesterday was given these figures in Washington by Thomson in conjunction with the county's urgent plea for major federal and state assistance in carrying the growing local relief load.

Influx of unemployed transients has grown alarmingly in recent months, Thomson's report showed. No figures were available to reveal the percentage of those coming here who are without means to support themselves, the State Department of Agriculture reported. Of the total of

2,046,614 persons who entered California during the twelve months' period ending April 30, 74 per cent indicated they were bound for Southern California areas, the report declared.—*Los Angeles Examiner,* July 10, 1937.

* * *

Ills of Labor Migrant Told*

Perkins Report Cites Bad Condition of Transient Workers

Secretary Perkins told the Senate today millions of American workmen and their families move around the country in search of jobs, without adequate direction and often living under "deplorable" conditions.

A certain amount of this labor migration is necessary to take care of industrial changes and seasonal work such as harvesting, Miss Perkins added in a report on migratory workers the Senate ordered last year.

Forced to Move

"Increasing numbers of workers are forced to move ceaseiessly across state lines to eke out a living by piecing together short and scattered seasons of employment in agriculture and industry," she said.

"As long as employers demand much more labor in one season than another, workers must migrate or find some alternative means of subsistence within each local area.

"Migration of workers, although necessary, is largely unguided or ill-directed. Although the relocation of workers has been broadly advantageous, it has often been inefficient from the point of view of the particular individuals involved.

Jobs Not Assured

"Rarely does any type of migrant have the assurance of a definite job until after he has moved. The lack of such assurance is especially disastrous for seasonal migrants who hope at most to share in a few weeks of employment in one place.

"When the migration of seasonal workers is overstimulated, untold misery results.

"Seasonal migrants in agriculture seem to be able to average only about six months of work each year. They appear to average about $300 a year per single man and $400 a year per family.

"The migrant and his family tend to be isolated from the normal activities of the community, both because of thelr enforced mode of travel and living and because of community prejudices against them.

Living Conditions Bad

"Living conditions for most migrants are deplorable. Families with as many as six children are traveling in old cars and trucks. At night they sieep by the roadside, in squatter camps or crowd into one or two-room cabins in low-priced tourist camps.

"Children old enough to work in the fields are expected to contribute badly needed income, and parents often do not consider it worth while to enroll the younger children in school during their short stay in any one community."

Miss Perkins emphasized that her report was incomplete because of lack of funds for a comprehensive survey. She said recommendations for legislation might come after a more complete study of the problem is made.—*Los Angeles Times,* July 4, 1937.

* * *

Migratory Jungles

A "cleanup" of hobo camp "jungles" in Los Angeles County was ordered today by the Board of Supervisors as the first step in combating the growing cost to public charlty of transient indigents flocking into California from the East.

The cleanup was ordered coincident with the policy enunciated by Supervisor Herbert C. Legg upon his return from a transient relief conference in San Bernardino yesterday, when he said that "jobs in California must be for California citizens."

Chairman Roger Jessup of the supervisors here instructed Sheriff Eugene Biscalluz today to call a meeting of the chiefs of police in the forty-four municipalities in Los Angeles County immediately to outline a course of action to clean up the hobo camps. He also recommended auto camps be checked thoroughiy.

"The indigent problem ln Los Angeles County is terrific and the moron element infesting this county is a big danger to respectable citizens," Jessup declared.

Indicating the growing cost to taxpaycrs of supporting indigents from other states who are arriving in California at the rate of 3,000 to 10,000 a month, Jessup revealed the tentative budget for the charity department of the county this fiscal year is $21,591,000, compared with $13,810,000 during the last fiscal year.

Supervisor Legg conferred in San Bernardino yesterday with C. E. Grier, supervisor of that county and president of the Califorlia Supervisors' Association. San Bernardino has refused to give relief to indigent transients, despite a ruling by Attorney General U. S. Webb that counties must care for such transients. Los Angeles County has been caring for this class of indigents.

"Figures show 35 per cent of those applying to the unemployment service for work in California are nonresidents," Legg said. "I am urging a policy that jobs in California, relief or otherwise, must go to citizens."

It is planned to contest Webb's ruling, Legg said, because many feei transient relief is a responsibility of the state and federal governments. Mayor Frank L. Shaw of Los Angeles last week stated similar convictions to the city council in urging that the Federal Government assume this burden.

Supervisors will confer with Governor Frank Merriam in Los Angeles, probably Tuesday, to arrange a meeting of state and county officials to try to solve the indigent relief problem. Should this not prove productive, the Supervisors Association wili take action, it was stated.—*Los Angeles Evening Herald-Express,* July 16, 1937.

* * *

Senate Aids Cancer Study

Passes $700,000 Bill for Research

Washington, July 22.—The Senate passed and sent to the House today a bill authorizing expenditure of $700,000, to advance cancer research.

The measure would create in the public health service a national cancer institute to conduct and assist studies of the cause, prevention, and treatment of cancer.

Cancer research of other agencies would be coördinated under the health service. An advisory committee of medical authorities would be set up to aid in carrying out the bill's provisions.—*Los Angeles Examiner.*

* * *

Health Act Befogs British Columbia

Plebiscite Over Legislature's Compulsory Insurance Law Only Adds to Confusion

Issue on Ballot Vague: Medical Men Revolted Over Fees Set by Board and Future of The Scheme Is in Doubt

Victoria, B. C., July 3.—This capital city of British Columbia is bewildered. The government's health insurance chicken has come home to roost, and nobody seems to have any idea what to do with it.

For many years health insurance has been discussed, but last year the government of T. D. Pattullo introduced a bill in the Legislature vaguely outlining a scheme of compulsory contributory health insurance. The measure passed in the House by a narrow majority, with the aid of the Socialist section of the opposition.

Immediately George M. Weir, Provincial Secretary, under whose department the adminlstration of the Health Insurance Law falls, made preparations for its enforcement.

Doctor Weir leased a five-story bullding and hired an army of statisticians and insurance experts. They went to work with a will to frame a suitable set of regulations, the act having left details to the organization that was to be created.

The main fcatures of the regulations were: (1) Only employed persons earning $1,800 or less, with their families, were included; (2) indigents, casual labor, farmers, domestics, trappers, fishermen having their own boats, prospectors and a host of other ciasses, including those working for themselves, were excluded, as well as all suffering from tubercuiosis and social diseases; (3) services were announccd as "mandatory" and "permissive" bencfits, the latter dependent upon funds being available at some future date.

The Mandatory Benefits

The mandatory benefits included: Services of a physician, the first call to be paid for by the patient at the rate of $1 if made by day and $1.50 at night; maternity care; hospital service in a public ward for a period not to exceed ten weeks; necessary drugs, medicines, and dressings subject to the provision that the insured might be required to pay up to one-half the cost of these items, and fuli laboratory service and diagnostic aids, including x-ray, biochemical, and other services.

The announced plan for financing the scheme was by compulsory deduction of 2 per cent of the wages of employcd persons coming under its provlsions, whiie the employer was orderod to contribute 1 per cent. The employee was to pay a minimum of thlrty-five cents weekly, and up to a maximum of seventy cents, while the employer was to be charged from twenty cents to thirty-five cents weekiy.

* See also pages 74 and 131.

There was general criticism of the scheme, but when the Health Insurance Commission announced what it proposed to pay to the medical practitioners for their services, the medical men rose in revolt. They had not been consulted, and they decided to have nothing to do with the scheme. The government was facing an election, and hesitated to attempt coercion.

Whole Plan Is Suspended

So the whole scheme—which was already the law of the country—was suspended. Already $83,900 of public funds had been expended, but the government announced a plebiscite.

This submission to the electors was the most confusing question ever placed before the British Columbia public. It was not for an endorsement of the scheme as announced, but an academic query: "Are you in favor of a comprehensive scheme of health insurance progressively applied?"

No person could explain just what was meant by that question. The British Columbia public is, on the whole, favorable to some plan of state medical aid, but the form of the question put upon the ballot paper was bewildering.

The confusion is more confounded by the fact that while about 30,000 more voted in the affirmative than gave a negative answer to the question, roughly 100,000 who went to the polls and voted for members of the legislature did not mark their preferences, according to the incomplete returns at hand.

So even with an apparent mandate to proceed with health insurance, the government is at a loss to know what form of scheme will be acceptable. — *New York Times:* — *NANA Press Despatch.*

* * *

Squatter Army Wages Grim Battle for Life*

Hunger and Disease Stalk 50,000 Transients in San Joaquin Valley

Human squalor—a picture of approximately 50,000 persons driven to California by dust storms, drought, ill health and debts—awaits the visitor looking beyond the roadside today in the San Joaquin Valley.

A new chapter in American history is being written here. A battle for life, for food, health, homes and security is being waged by these hordes of transient indigents.

Pioneers Recalled

Within an hour the skeptic must admit he has seen disease, privation, filth and threats of epidemics. But he also must admit that he is seeing a fight for a job and a fight for a home similar to that of the pioneers in the South and Middle West in the last century. . . .

These people are not hoboes. They are not tramps. They are not foreigners. They are men destroyed financially in the Middle West and Southwest. Many are the Cotton Belt "white trash," but they are Americans.

Sympathy Aroused

Whether one visits the Federal Resettlement Administration's camps at Shafter and Arvin or the huddles of migrant indigents beside the roads throughout Kern County, one almost is struck dumb with sympathy.

Ranchers have provided eighty-six camps, ranging in size from a few dirty tents and tin shacks to the seventy-one bunkhouses, tents, trailer houses, railroad box and refrigerator cars on the DiGiorgio farms near Arvin.

The DiGiorgio layout includes separate quarters for Americans, Filipinos and Mexicans. But most camps throughout the county are populated by white Americans. . . .

Kern County has at least 10,000 transients from other states, relief and health officials estimate. They are the forgotten men of 1937. They have been brave enough, or perhaps disgusted enough, to leave their home states to fight for life in California.

No Starvation

There is no starvation—yet. Despite Works Progress Administration, State Relief Administration and Kern County Welfare Department rules to care first for permanent residents, these transients do occasionally receive financial aid and hospitalization. But funds are almost totally lacking to aid them adequately.

The men pick fruit and chop cotton. They earn an average of $2.75 to $3 a day. But they work, at the most, only half the days of the year. They must follow the crops during seasonal harvests throughout the San Joaquin Valley, and meantime their wives and children are falling prey to disease.

Prey to Disease

Go throughout Kern County—to Buttonwillow, Shafter, Wasco, Delano, McFarland, Famosa, Edison, Old River, Arvin, Panama or right on the outskirts of Bakersfield—and one sees and hears their woes.

Eleven cases of typhoid fever are now being treated. The county camp at Shafter was closed on July 10 and 108 families had to leave because flies in comfort stations threatened an outbreak of pestilence. Last night an open well near Shafter was closed because a family using it for drinking water is afflicted with eye disease.

Many Babies Die

Infant mortality caused by diarrhea and enteritis is triple the national average. Fifty babies died last year because of this.

Seven cases of poliomyclitis—infantile paralysis—are scattered throughout the county among the squatters. Incipient tuberculosis develops easily.

Most camps have no baths, no showers, poor plumbing. The migratory workers drink from irrigation ditches at times and bathe in them. Typhoid easily results.

Governor Merriam, when he confers next week in Los Angeles with relief and welfare officials, has a problem appearing beyond solution.

Harry L. Hopkins, Works Progress Administrator, has offered sympathy but no financial aid. He contends the $1,500,000,000 WPA bill recently passed does not provide the aid for transients which California asks.

A visit to these squatter camps leaves one aghast.

One comes little more than 100 miles from Los Angeles and feels as if he might be in China, living among coolies.

Refuse to Return

Many of the transients are from Oklahoma, Arkansas, Missouri and Texas. Share-croppers, small farmers, a few tradesmen they are.

The county has offered to pay their expenses in returning them to their home states. Almost everyone refuses. There is nothing but drought and debt back there. Here there is a chance, at least during part of the year, to work.

There is a neighborliness among them. The worst time will be when cotton picking ends in September or October. County officials estimate that 22,000 more transients will be here then. After that—little or no work until March. Little or no money. Little food. Cheap tents crumpling under the rain. But a few loan enough to the others to prevent starvation. Will they do so next fall? Relief officials hope so. . . .

Officials Helpless

Health inspectors constantly check sanitary facilities, plumbing and drinking water. But they cannot stop insects multiplying. They cannot force the transient indigents to adopt cleaner living habits. They cannot put stockings on barefooted mothers walking on dusty paths. They do hope to get money to build five supervised transient camps. They do hope the Federal Resettlement Administration will build more..

---

*Wilful Underweight.**—Pride is one of the mainsprings of progress. But an illogical vanity is quite another matter. Vanity, among other things, inspires a comparatively large number of both men and women, particularly the latter, to deprive their bodies of the necessary amount of nourishing food. Thus to be guilty of a wilful, deliberate and premeditated sub-starving program is extremely foolish.

Made caloric-conscious a number of years ago and vitamin-alert during the past half-decade, there are thousands of persons who take their food intake too seriously. This offense frequently is predicated upon the desire to regain or maintain a stream-lined figure.

For instance, a year ago, a woman in her early thirties who was a "natural stout," decided it was high time to do something about it. So, following the too general trend of adopting dietary habits without professional sanction, she inflicted upon herself a cruel food regimen. Of course, she took off weight. However, in the process she literally starved herself. With a bodily resistance reduced to a pitiably low level, she succumbed to an acute illness—a vanity victim.

While this is an uncommon case, it nevertheless reveals a popular attitude on the reducing problem. Quite willing to seek authoritative advice on other subjects, many persons consider it totally unnecessary where diet is involved. In this connection, they are willing to be guided by the suggestions of friends or by their own judgment. Such an attitude can result in many serious consequences.

In short, whether one is thin and for vanity's sake desires to stay that way, or is stout and for the same reason wants to regain straight lines, the only safe practice is to seek and adopt professional advice. Wilfully to sub-starve for aesthetic purposes is a foolish and dangerous practice, and no doctor will recommend it.

* By Ray Zeman, *Los Angeles Times* staff representative.

* By Dr. I. C. Riggin, State Health Commissioner, Virginia.

TWENTY-FIVE YEARS AGO†

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. X, No. 8, August, 1912

From Some Editorial Notes:

The A. M. A. Meeting.—The annual meeting of the American Medical Association at Atlantic City was a distinct success. The attendance was very good—within a small number of reaching the high water mark for Atlantic City meetings. A very large amount of work was done by the House of Delegates, but probably the most important single action taken was the decision to call a meeting of the secretaries of all State Medical organizations to be held in Chicago this fall, for the purpose of securing some more generally similar and satisfactory method of regulating membership. The President, in his address to the House of Delegates, made some recommendations that would have been far reaching and disastrous had they been carried out. But the House of Delegates wisely rejected these, and perhaps the most charitable thing to do is to make no further comment. Minneapolis is to be the place of the next meeting, the exact date not having as yet been determined. The officers elected are as follows:

President-Elect, Dr. John A. Witherspoon, Nashville, Tenn. . . .

* * *

Serious Horrors.—Bernard Shaw, in his preface to "Three Plays by Brieux," has some most pertinent reflections. "Nothing that is admittedly and unmistakably horrible matters very much, because it frightens people into seeking a remedy; the serious horrors are those which seem entirely respectable and normal to respectable and normal men." . . .

* * *

From an article on "The California State Tuberculosis Commission." By George H. Kress, M. D., Los Angeles, Chairman of the Commission.—The particular reason for giving the California State Tuberculosis Commission a place on this morning's program was to officially and briefly call to the attention of the members of the State Medical Society, somewhat of the nature of this newly formed State commission and some of the things it hoped to do.

As you all know, the last Legislature appropriated $5,000, to be spent by a special tuberculosis commission to be appointed by the California State Board of Health, this commission to use this money to "ascertain the effects of localities, employments, conditions and circumstances on the health of those developing tuberculosis, and to determine the best means of eradication thereof." . . .

The State Board of Health appointed on the executive board of five, the following persons:

Dr. C. C. Browning of Los Angeles, Miss Katherine Felton of San Francisco, Dr. R. G. Broderick of San Francisco, Mr. A. Bonnheim of Sacramento, Dr. George H. Kress of Los Angeles, Chairman. . . .

* * *

From an article on "Rabies, and Its Present Status in California." By Wilbur A. Sawyer, M. D., Director of the Bureau of the Hygienic Laboratory of the California State Board of Health, Berkeley.—Efforts to check the spread of rabies, or hydrophobia, among the dogs of California are greatly hampered by the difficulty in obtaining authoritative statements of fact regarding the present situation. Many controversial articles and conflicting theories are being read and discussed, and it is no wonder that the public and, to a large extent, the medical profession of California are unaware of the true state of affairs. This article will attempt to present the facts needed by those who are trying to check the spread of the disease among dogs and to make its transmission to people impossible.

The early part of the present epizoötic was reported by Black and Powers [Health Officers of Pasadena and Los

(Continued in Front Advertising Section, Page 19)

†This column strives to mirror the work and aims of colleagues who bore the brunt of Association work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By Charles B. Pinkham, M. D.
Secretary-Treasurer

BOARD PROCEEDINGS

At a regular meeting of the Board of Medical Examiners held in Native Sons Hall, San Francisco, June 28 to July 1, inclusive, approximately 175 applicants wrote the examination, including approximately twenty chiropodists and one drugless practitioner.

Eighteen licentiates charged with various infractions of Section 14 of the Medical Practice Act, were called for hearing, with the following results:

Baker, Robert V., M. D., was on June 29, 1937, found guilty and placed on probation for five years.

Cary, Frank T., M. D., charged with conviction of violation of the Harrison Narcotic Act, was on June 30, 1937, revoked.

Chernyh, Sergey N., M. D., cited because of his conviction of violation of the State Narcotic Act, was on July 1, 1937, placed on probation for two years.

Gardner, Henry L., M. D. (initiated January 6, 1933), continued to the October, 1937, meeting.

Long, Oscar Charles, M. D., convicted of violation of the Harrison Act; conviction affirmed June 7, 1937, by the United States Circuit Court of Appeals, has his case continued to the Sacramento meeting of the Board, awaiting filing of a remittitur.

Long, Samuel C., M. D., alleged illegal operation. Revoked July 1, 1937.

Long, Thomas Sherman, M. D., charged with use of fictitious name, was on July 1, 1937, placed on probation for a period of five years.

McLellan, Gordon Lawrence, M. D., charged with narcotic dereliction. Revoked July 1, 1937.

Niemann, Theodore H., M. D., charged with violation of probation re narcotics. Revoked July 1, 1937.

Reorda, Caterina (midwife), charged with practicing beyond the limitations of her midwife license. Revoked June 30, 1937.

Steddon, Francis, M. D., narcotic dereliction. Revoked July 1, 1937.

Teepell, William, M. D., use of fictitious name. Probation for five years, July 1, 1937.

Tweedie, Arthur M., M. D., violation of probation re narcotics. Revoked June 30, 1937.

Watts, George E., M. D. Second complaint, abortion, dismissed June 29, 1937, because of his death May 20, 1937.

Whiteside, Harold H., M. D., June 29, 1937, guilty as charged. Penalty deferred.

Williams, Edward Huntington, M. D., conviction of violation of Harrison Act affirmed June 30, 1937. Probation two years without narcotic permit or privileges.

Wyatt, Thomas D., M. D., alleged illegal operation. July 1, 1937, continued to October meeting.

The license of Robert J. McAdory, M. D., revoked July 15, 1926, was on July 1, 1937, restored.

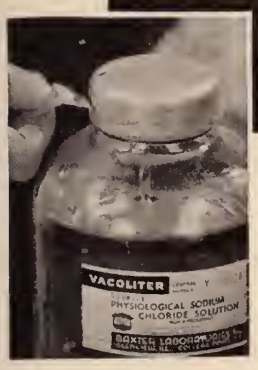
News

"Dr. F. N. Folsom was arrested here today on a charge of violating the State Narcotic Laws. A. J. O'Ferrall, State Narcotics Agent, who swore to the complaint, said Doctor Folsom was accused of writing prescriptions for narcotics under fictitious names." (Associated Press Dispatch, dated Santa Rosa, June 17, printed Sacramento *Union*, June 18, 1937.)

"Four persons, all charged with conspiracy to commit an illegal operation, were found guilty by a jury yesterday in the court of Superior Judge Sylvain Lazarus. The four, who will be sentenced on Tuesday, were Minerva Geddes, Mr. and Mrs. Rudolph Zoffel, and Mrs. Eland Swindell. The quartet was arrested July 16, 1936, when a police homicide detail, acting on information from the sister of a woman who died as the result of an illegal operation, raided

(Continued in Front Advertising Section, Page 22)

† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.



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These Two Depressions Tell a Story of *Sterility*

These two tiny depressions aren't just a happy accident . . . they have a definite . . . an important duty to perform for you. When the vacuum is mechanically induced in the Vacoliter this gum rubber diaphragm is drawn down into the holes in the rubber stopper. It stays that way until the vacuum is destroyed.

When you see these telltale depressions you are sure that the solution you are about to use is as pure and sterile as it was the day it left our laboratory. That's the mission of these depressions . . . to give you a visible index of vacuum . . . of sterility . . . so that you can use Baxter's with complete confidence.

The all metal tamper-proof seal, the specially moulded rubber stopper, the metal identification disc,—all contribute their share to the confidence of the thousands who use Baxter's every day. Only Baxter users realize how convenient intravenous injections can be. We'd like to show you.

3 simple steps from storage shelf to patient's vein.

BAXTER'S *Intravenous Solutions* IN VACOLITERS

DON BAXTER, Inc.

Research and Production Laboratories

GLENDALE, CALIFORNIA

DISTRIBUTORS:

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The Ohio Chemical & Mfg. Co. . . . . *San Francisco*
Shaw Supply Co., *Tacoma-Seattle-Portland*
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Spokane Surgical Supply Co. . *Spokane*

AMNESIA

Convenientia Patientis

DIAGNOSIS: Loss of memory, usually following medical treatment and particularly with reference to the doctor's bill.

SYMPTOMS: Avoids the doctor; moves, leaving no forwarding address; ignores bills, statements and letters; or discovers treatment was unnecessary, or ineffective, or both; doctor's charges excessive, as neighbor got more for less from another doctor; can't afford to pay, as must pay chiropractor who cured, and paying on new automobile.

PROGNOSIS: Usually curable in early stages; if neglected, is progressive and becomes chronic and incurable.

PRESCRIPTION: Refer promptly when ailment discovered to competent specialist (The Doctors Business Bureau).

TREATMENT: (Administered by the D. B. B.): Tactful approach; courteous, but firm and effective argument; increase and repeat for satisfactory result.

RESULT: Complete return to mental normalcy; greatly relieved conscience; restored high regard for doctor as indicated by recommendation to all acquaintances, and prompt payment for all further services.

DISCUSSION: (By the D.B.B.): Unnecessary and unwise delay in proper use of suggested prescription results in *rigor mortis* of the doctor's bill.

Sixth Floor
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Service restricted to Ethical Doctors and Recognized Hospitals

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LONG BEACH

Rx Physicians NON-ALLERGIC Formula COSMETICS

CONFIDENCE Born of Complete Understanding!

Developed by a Physician, compounded by a Pharmacist, PHYSICIANS FORMULA COSMETICS are *Safe* and *Effective*. We desire to confer and cooperate with the medical profession on problems pertaining to cosmetic skin irritations.

Formulas and Samples are Furnished on Request

In Los Angeles at

HORTON AND CONVERSE PHARMACIES

PHYSICIANS FORMULA COSMETICS

2006 Wilshire Boulevard Los Angeles
Telephone EXposition 2121

(Continued from Front Advertising Section, Page 30)

consisting for the most part of citrus oils and acid, artificial flavor, color and water.

Drug Seizures.—Seizure of the following drugs and medicinal preparations was reported in the past month: Seventeen cans of impure ether; one shipment of "Cereal Lactic," represented as a good source of bacillus acidophilus, whereas the product was markedly deficient in that bacillus, but contaminated with others; "Effervescent Seltzer," containing five grains acetanilid per ounce, but represented as containing twenty grains, and falsely offered as a treatment for stomach disorders, acidity, and gastric distress.

"Four Star One a Night Healing Salve," petrolatum containing menthol, eucalyptol, wintergreen, and camphor, for croup, respiratory disorders, sore throat, cough, hay fever, catarrh, asthma, skin infections, pneumonia, acute bronchitis, and influenza; "Geno Tablets," for bowel troubles in chicks, intestinal disorders in all ages of poultry, coccidiosis and typhoid cholera; "Helm's Dehydrated Pure Swiss Goat's Milk" and "Helm's Powdered Whole Swiss Goat's Milk," represented as four times richer in iron than cow's milk, and as containing "abundant" vitamins, offered as an antirachitic and antiscrobutic food for use in the treatment of eczema, tuberculosis, stomach ulcers, asthma, anemia, run-down conditions and acidosis.

"Ice Mint," for red, rough hands, nervous headaches, lameness, sore muscles, irritations, painful corns and calluses, burns, clogged nostrils, piles, tired, aching, burning feet, head and chest colds, sore throat, nasal catarrh, spasmodic croup, laryngitis and other respiratory diseases, inflammation caused by cuts, bruises, burns and sprains, pain of muscular rheumatism and neuritis, and eczema.

"La-Vim," containing a laxative drug, nux vomica and a phosphorus compound, for the relief and correction of malnutrition, languidness, and frailty in men, women, and children; "Lund's Magic of the Grape," water, glucose and 20 per cent grape juice, represented as pure grape juice, for colds, rheumatism, emaciation, overweight, sleeplessness, cancer, congestion, and stomach, liver, kidney, intestinal, lung, or bladder troubles.

FRANKLIN
HOSPITAL

Limited General Hospital with accommodations for 220 patients located in a seven-acre park. Fourteenth and Noe Streets, San Francisco.

Fully approved by the American College of Surgeons and the American Medical Association for Interne Training, and maintaining an Accredited School of Nursing.

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President

LeROY BROOKS, M. D.
Chief of Staff

FRANK SCHMIDT
Superintendent

"Miller's Antiseptic Oil," kerosene, turpentine, and other oils, falsely represented as capable of penetrating "the thickest sole leather in a few minutes," for deep-seated pain and soreness, muscular rheumatism, lumbago, corns, burns, scalds, diarrhea, cramps, sore throat, influenza, colds, pneumonia and croup; "Oilax Compound Tablets," plant material including aloe, strychnine and croton oil, bearing the statement "Keep healthy, feel better, live longer, avoid constipation."

"Ourine Application for the Ears," glycerin, boric acid, plant extracts and oils, for head noises, partial deafness, running ear and buzzing and ringing of the ears; "Ourine Nasal Balm," mineral oil with small amounts of menthol and wintergreen, colored green, for nasal catarrh; "Doctor Sharpsteen's Hindoo Salve No. 16," an ointment containing small amounts of chloroform and oils, bearing no declaration of the presence of chloroform, as required by law, and represented as a treatment for pneumonia, lung fever, croup, diphtheria, quinsy, piles, sores, ulcers, granulated eyelids and eczema.

"Doctor Sharpsteen's Vegetable Hindoo Oil No. 5," containing 15 per cent chloroform, fatty oils and sassafras oil, clove oil, menthol and camphor, bearing an incorrect declaration of the proportion of chloroform, for dyspepsia, colic, lame back, gallstones, dropsy, grippe, coughs, inflammation, gas in stomach and bowels, quinsy, stomach worms, pin worms, tape worms, appendicitis, croup, rheumatism, fistula, piles, constipation, cararrh, consumption, salt rheum, eczema, cramps, neuralgia, pleurisy, pneumonia, toothache, ulcerated teeth, influenza, eyeache, earache, cholera morbus, gravel, diabetes and Bright's disease.

"Doctor Sharpsteen's Vegetable Tablets" (Nos. 1, 2, 3, and 4), all misrepresented as composed of "fruits, roots, herbs and seeds," and offered for the treatment of stomach, kidney, liver, spleen, and blood diseases, sciatic and inflammatory rheumatism, swollen tonsils, catarrh, bronchitis, asthma, pneumonia, weak, palpitating heart, bloating, eczema, erysipelas, gravel and jaundice.

"Vi-Go-Ra Olive Oil Hair Tonic," made of castor oil, a sulfonated oil, water and color, and containing no olive oil, for dandruff, itching scalp, falling hair, and eczema; and

For Acidity and Allied Conditions, we suggest

ADAMS SPRINGS MINERAL WATER

● MANY physicians recommend the water in conjunction with the treatment of stomach, liver and kidney trouble.

ADAMS MINERAL SPRINGS is one of the seven known iron and maganese bi-carbonate springs in the world, and the only one in Western America.

It is not a cure-all, but it overcomes acid excesses in the body, and is a very mild but wonderfully effective eliminator. The bowels function without spasm, the kidney output is greatly increased, and there is *marked* drainage of bile from the gall bladder and liver.

There is also some constitutional upset for a few days, particularly in gall bladder cases. But this is soon over and your patient begins to show improvement and is now in condition to profit by any medication you may prescribe. If the case is an operative one, you have improved your patient and made of him a better risk.

We will be pleased to cooperate in any way whatever, and samples of water are yours for the asking.

A Natural Mineral Water
SHOWING MAIN CONSTITUENTS
By Prof. Sydney A. Tibbetts, *Berkeley*

MANGANESE	1.3 parts per million
IRON	12.5 parts per million
CALCIUM	173.3 parts per million
MAGNESIA	339.3 parts per million
SODIUM	365.0 parts per million
SILICA	93.0 parts per million
CHLORINE	38.3 parts per million
SULPHATE	16.1 parts per million
NITRATE	0 parts per million
PHOSPHATE	.7 parts per million
CARBONATE	1551.4 parts per million
TOTAL	2591.4 parts per million

For further information write **DR. W. R. PRATHER**
ADAMS SPRINGS, LAKE COUNTY, CALIFORNIA

Steam heated hotel, open all year around.

3000 feet up in the Lake County Pines.

(Since 1870)

"Williams Turkey Tonic," a solution of hydrochloric acid, Epsom salt, an iron salt and a plant extract, for amebic infection and other ailments of turkeys. The last product was also in violation of the Federal Caustic Poison Act because the word "Poison" was not of the proper size, and the antidote given was not complete.

Courts End Nineteen Cases.—Nineteen actions brought under the penal provisions of the Food and Drugs Act were terminated by Federal courts in the past month. The terminations were: Whittier Walnut Packing Co., Whittier, Calif., moldy, wormy, and rancid walnut meats, fined $300; El Reno Mill & Elevator Company, El Reno, Okla., dairy and mixed feeds, part of which were low in fat and protein, and part adulterated with oat hulls and dried weeds, fined $75 and costs; Fettig Canning Corporation, Elwood, Ind., canned tomatoes containing puree made from tomato trimmings, and substandard because not in large pieces, fined $25; Steensland Oil and Produce Com-

(Continued on Next Page)

CALSO WATER

Palatable ALKALINE *Sparkling*

NOT A LAXATIVE

Calso Water: An efficient method of supplying the normal ALKALINE SALTS for counteracting ACIDOSIS.

Calso Water: Made of distilled water and the ALKALINE SALTS (C. P.) normally present in the healthy body.

Calso Water: Counteracts and prevents ACIDOSIS, maintains the ALKALINE RESERVE.

The Calso Company

524 Gough Street, San Francisco — Transportation Bldg., Los Angeles

St. Mary's Hospital

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SAN FRANCISCO, CALIFORNIA

Conducted by Sisters of Mercy

Accredited by the American Medical Association and Approved by the American College of Surgeons. Open to all members of the California Medical Association. Accredited School of Nursing and Out-Patient Department.

(Continued from Preceding Page)

pany, Beresford, S. D., fined $25; Salt City Creamery, Oklahoma City, Okla., fined $25 and costs, and Adolph P. Ericksen, trading as Progress Creamery, Vancouver, Wash., fined $200 and costs, for shipments of butter containing less than 80 per cent butterfat.

Food Materials Corporation, Chicago, Ill., short volume vanilla extract, fined $25; Shields Fruit Company, Inc., Freewater, Ore., apples carrying lead and arsenic spray residues, fined $10; W. C. Larrimore, St. Michaels, Md., two actions based on shipments of unclean crabmeat, fines of $50 and costs, and $125 and costs; Alaska Pacific Salmon Company, Rose Inlet, Alaska, fined $200 and costs, and Alaska Packers Association, San Francisco, Calif., fined $200, for shipments of partially decomposed canned salmon.

Independence Produce Company, Independence, Iowa (Charles V. Rosenberger and Edward J. Belgrade), diseased and decomposed dressed poultry, total fines of $200 and costs; Leading Drug Company, New York, N. Y., fined $110; Standard Pharmaceutical Corporation, Baltimore, Md., fined $500, and CaPhenin Chemical Company, Waverly, Iowa, fined $40 and costs, for shipments of substandard pharmaceuticals.

Radiumized Applicator Company, Inc. (Paul E. Streamer, president), Buffalo, N. Y., "Radiumized Water Revitalizer" and "Radiumized Health Pad," represented as effective in the treatment of kidney and bladder trouble, constipation, prostate trouble, high blood pressure, nervous disorders, stomach trouble, indigestion, goitre, ulcers, skin diseases, chronic ailments, rheumatism, arthritis and gout, fines totaling $400, suspended by the court.

Health Foundation of California, Los Angeles, Calif. (E. Billy Hamburg and Joseph A. Sabol), "Vegetrate" preparations represented as made entirely from concentrated fresh raw fruits and vegetables, but containing such things as calcium carbonate, rice bran, dried rhubarb, cinnamon, kelp and senna, in addition to dried leaves and berries, and represented as treatments for deficiency diseases, hyperacidity, malnutrition, nervous tension, asthma, and diabetes, total fines of $225.

Dr. Buren L. Corley, trading as Doctor Corley's Products, San Francisco, Calif., "Doctor Corley's Health Broth," "Doctor Corley's Cor-Lax," and "Doctor Corley's Tooth Powder," the first two products represented as treatments for mineral and vitamin deficiency diseases, stomach trouble, gas, ulcers, nervousness, depleted blood condition, rheumatism, anemia, gastritis, acidosis, dyspepsia, cancer, bronchitis, gall-bladder trouble, asthma, low blood pressure, hay fever, rash, acne, high blood pressure, indigestion, jaundice, colitis, constipation, sinus trouble, diabetes, arthritis, Bright's disease, heart trouble, influenza, pneumonia, tuberculosis, cirrhosis of the liver and anemia, and the tooth power to preserve the gums, fined $270.

Health Officers of the State of California

By Counties—May 15, 1937

ALAMEDA COUNTY	Dr. I. O. Church, Oakland
Alameda	L. E. Skilling, M. D.
Albany	Dr. Jack L. Stein
Berkeley	Dr. Frank L. Kelly
Emeryville	Dr. Charles Newell Mell
Hayward	Nelson E. Clemens, D. V. M.
Livermore	Dr. Paul E. Dolan
Oakland	Dr. N. N. Ashley
Piedmont	Dr. Harry J. Smith
Pleasanton	Dr. D'Arcy Chace
San Leandro	Under County Supervision
ALPINE COUNTY	Dr. Theodore J. Bluechel, Minden, Nev.
AMADOR COUNTY	Dr. J. M. Wakefield, Sutter Creek
Amador City	Mr. Ben White
Jackson	Mr. Earl J. Garberini
Plymouth	Mr. Pete Laverone
Sutter Creek	Mr. William T. Connors
BUTTE COUNTY	B. C. Epperson, D. O., Oroville
Biggs	Mr. Leon Brink
Chico	Mr. Charles E. Tovee
Gridley	Dr. W. S. Lavy
Oroville	Dr. Charles Benninger
CALAVERAS COUNTY	Dr. Geo. P. Cooper, Angels Camp
Angels Camp	Dr. H. J. Haysom
COLUSA COUNTY	Ney M. Salter, M. D.
Colusa	Dr. G. W. Desrosier
Williams	Dr. Charles F. Keith

(Continued on Page 41)

NOT AN ARM-CHAIR SURGERY

During the World War there was always to be found a type of soldier who fought from the comfort of an arm chair. Such soldiers were willing enough to tell how the fighting should be done, but they never did any of the actual fighting themselves. There are books on surgery written by arm-chair surgeons, men who are not at the operating-room fronts. It is obvious that something must be lacking in this type of surgical literature. The set of surgical books described on this page is not arm-chair surgery. Every one of the men connected with this surgery can be found any day in the week in gown and mask, and with their surgical instruments, in their clinics—and they write from the battle fronts where saving life is their chief concern. Take this into account when picking a text to add to your surgical library.

OPERATIVE SURGERY

By J. SHELTON HORSLEY, M. D., LL. D., F. A. C. S., Attending Surgeon, St. Elizabeth's Hospital, Richmond, Va., and ISAAC A. BIGGER, M. D., Professor of Surgery, Medical College of Virginia, Surgeon-in-Chief, Memorial Hospital, Richmond, Va., with Contributions by C. C. COLEMAN, JOHN S. HORSLEY, JR., AUSTIN I. DODSON, and DONALD M. FAULKNER. In two volumes, 1,387 pages, 1,259 illustrations. Price $15.00.

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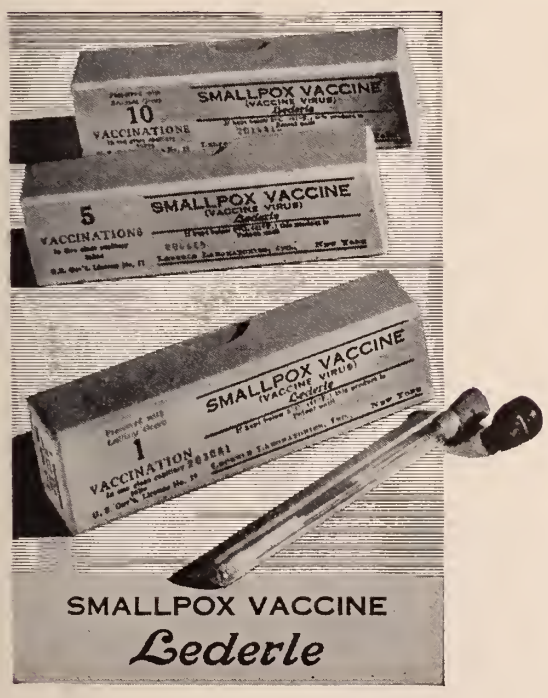

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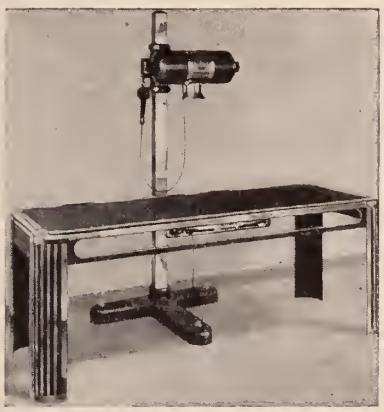

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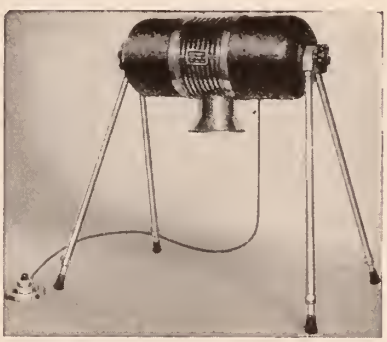

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2404 Broadway, Oakland
President, H. Gordon MacLean, 230 Grand Avenue, Oakland.
Secretary, Gertrude Moore, 2404 Broadway, Oakland.
Meeting, *Third Monday, 8:15 p. m., Hunter Hall, Oakland.*

Butte County Medical Society
President, John H. White, 315 Wall Street, Chico.
Secretary, J. O. Chiapella, 131 Broadway, Chico.
Meeting, *Second Thursday.*

Contra Costa County Medical Society
President, Clara H. Spalding, 331 Eighth Street, Richmond.
Secretary, Thomas J. Dozier, 202 G Street, Antioch.
Meeting, *Second Tuesday, 8 p. m.*

Fresno County Medical Society
President, J. M. Frawley, T. W. Patterson Building, Fresno.
Secretary, O. B. Doyle, Bank of America Building, Fresno.
Meeting, *First Tuesday, University-Sequoia Club, Fresno.*

Humboldt County Medical Society
President, Allan R. Watson, 350 E Street, Eureka.
Secretary, Lawrence A. Wing, Fifth and F Streets, Eureka.
Meeting, *First Thursday.*

Imperial County Medical Society
President, Floyd A. Burger, Box 193, El Centro.
Secretary, Merritt C. Canfield, 204 Professional Building, El Centro.
Meeting, *Third Tuesday, 7 p. m., Barbara Worth Hotel, El Centro.*

Kern County Medical Society
President, H. R. McAllister, Professional Building, Taft.
Secretary, C. S. Compton, 428 C Street, Bakersfield.
Meeting, *Third Thursday, 8:30 p. m.*

Kings County Medical Society
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Meeting, *Second Monday, 8 p.m., Legion Hall, Hanford.*

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Meeting, *On Call.*

Los Angeles County Medical Association
1925 Wilshire Boulevard, Los Angeles
President, John P. Nuttall, 203 Professional Building, Santa Monica.
Secretary, George D. Maner, 1925 Wilshire Boulevard, Los Angeles.
Meetings, *First and Third Thursdays, 1925 Wilshire Boulevard, Los Angeles.*

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Secretary, Carl W. Clark, 510 B Street, San Rafael.
Meeting, *Fourth Thursday, 6:30 p. m., Marin Golf and Country Club.*

Mendocino-Lake County Medical Society
President, Thomas P. Hill, Lakeport.
Secretary, Charles A. Craig, Lakeport.
Meeting, *On Call.*

Merced County Medical Society
President, Max Brannon, Merced.
Secretary, Fred O. Lien, Shaffer Building, Merced.
Meeting, *Third Thursday, Hotel Tioga, Merced.*

Monterey County Medical Society
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Secretary, Arthur L. Wessels, Salinas National Bank Building, Salinas.
Meeting, *First Thursday.*

Napa County Medical Society
President, Fred Heegler, Migliavacca Building, Napa.
Secretary, M. M. Booth, Bruck Building, St. Helena.
Meeting, *First Wednesday.*

Orange County Medical Society
President, Waldo S. Wehrly, 620 N. Main St., Santa Ana.
Secretary, Glenn Curtis, 323 So. Pomona Street, Brea.
Meeting, *First Tuesday, 8 p. m., Chapel of the Orange County Hospital, Orange.*

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President, C. E. Lewis, 59 Lincoln Ave., Auburn.
Secretary, Robert A. Peers, Colfax.
Meeting, *At Call of President.*

Riverside County Medical Society
President, H. L. Ratliff, 3616 Main Street, Riverside.
Secretary, Thomas A. Card, 3616 Main Street, Riverside.
Meeting, *Second Monday, 8 p. m., Library, Riverside Community Hospital.*

Sacramento Society for Medical Improvement
President, Raymond M. Wallerius, 312 Physicians Building, Sacramento.
Secretary, Glenn E. Millar, 321 Physicians Building, Sacramento.
Meeting, *Third Tuesday, 8:30 p. m., Auditorium, Sacramento.*

San Benito County Medical Society
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Secretary, L. E. Smith, Hollister.
Meeting, *At Call of President.*

San Bernardino County Medical Society
President, Delbert B. Williams, 401 North Eighth Street, Colton.
Secretary, A. E. Varden, Medico-Dental Building, San Bernardino.
Meeting, *First Tuesday, 8 p. m., San Bernardino County Charity Hospital.*

San Diego County Medical Society
Fourteenth Floor, Medico-Dental Building, 233 A Street, San Diego
President, S. J. McClendon, 2001 Fourth Street, San Diego.
Secretary, W. H. Newman, Medico-Dental Building, San Diego.
Meeting, *Second Tuesday, El Cortez Hotel.*

San Francisco County Medical Society
2180 Washington Street, San Francisco
President, T. Henshaw Kelly, 490 Post Street, San Francisco.
Secretary, Stanley H. Mentzer, 2180 Washington Street, San Francisco.
Meetings, *Every Tuesday, 8:15 p. m., 2180 Washington Street, San Francisco.*

San Joaquin County Medical Society
President, John S. Blinn, 1101 Medico-Dental Building, Stockton.
Secretary, George H. Rohrbacher, Medico-Dental Building, Stockton.
Meeting, *First Thursday, 8:15 p. m., Medico-Dental Club Rooms, Stockton.*

San Luis Obispo County Medical Society
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Meeting, *Third Saturday, 6:30 p. m., Mulholland's Grill, San Luis Obispo.*

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Meeting, *Second Monday.*

Siskiyou County Medical Society
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Secretary, J. B. McGuire, Mt. Shasta City.
Meeting, *Second Sunday.*

Solano County Medical Society
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Secretary, John W. Green, Box 539, Vallejo.
Meeting, *Second Tuesday, 8 p. m., Casa de Vallejo Hotel, Vallejo.*

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Meeting, *Second Friday.*

Tehama County Medical Society
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Meeting, *Second Tuesday, Ventura County Country Club.*

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* Deceased.

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YOUR SURGICAL DEALER CAN SUPPLY

Toxic Drugs: Dinitrophenol.—*To the Editor*—With regard to the article in THE JOURNAL on "Dinitrophenol and Desiccated Thyroid in the Treatment of Obesity," by Dr. Samuel Simkins (June 19, p. 2110, June 26, p. 2193), I wish to express my appreciation of the high quality of the arbeit. In the concluding paragraph in the summary the recommendation is made that "the indiscriminate clinical use of dinitrophenol should be discontinued until the vexing problem of cataracts complicating dinitrophenol therapy is solved." I would suggest that at the present time the profession follow it, omitting the adjective "indiscriminate." The great trouble is that we are not able to discriminate. Is it not enough to know that the drug is extremely toxic and that we should not employ it in the treatment of obesity?

Recently an article appeared in a Mayo Clinic publication stating that the authors used cinchophen in the treatment of gout. Of course, they use careful liver-function tests before prescribing the drug, but the point that I wish to make is that the average physician may take a chance without making the test for liver function. The question of the toxicity of the drug appears to be clearly answered in the article by Palmer and Woodall in the September 5, 1936, issue of THE JOURNAL. Certainly enough incriminating evidence has accumulated in the literature to exclude this drug from the pharmacopeia.

Phenolphthalein is a drug that is largely used as a habitual laxative. Its popularity is due to the fact that it acts and is usually prepared in convenient palatable form. In certain individuals the drug is extremely toxic, producing skin eruptions and other evidences of toxemia. I make it a rule in my practice to examine the feces carefully in every case that comes to the clinic. The patients who have taken this drug for any length of time present evidence of chronic catarrhal enterocolitis. The drug belongs to the class of cathartics that produce local irritation. Many of the manufacturers of agar and oil mixtures slip in a dose of phenolphthalein to make the preparation more active, thereby deluding the doctor, who believes that he is prescribing a non-irritant mixture.—Horace W. Soper, M.D., St. Louis.—*Journal of the American Medical Association.*

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In a reminiscence, Whitelaw Reid, the distinguished editor of the New York *Tribune,* and United States Ambassador to England, recalled a dinner in a London club, with Professor Huxley among the guests.

"The conversation happened to turn on the amazing progress of the civilized world, in all directions, during the century just closing. At a lull in the talk, I turned to Professor Huxley and asked him what he would rate as the greatest single scientific discovery of the century.

"I expected—and some of the guests afterward told me that they expected—to hear the telegraph mentioned, or the ocean cable, or possibly ocean navigation by steam, or rapid printing machines, or some of the other practical inventions, which have so enormously widened civilization, developed its activities, and increased capacities of human life.

"But without an instant's hesitation, Professor Huxley replied that he thought there could be no doubt of the proper answer to that question.

"He considered the discovery of antiseptic surgery the greatest and most beneficent scientific discovery of the century!

"He paid a proper compliment to the discoverers of anesthetics; but dwelt on the actual addition to man's control over human life and the undeniable increase in its average duration which antiseptic surgery secured.

"He spoke of the possibility of curing multitudes of cases formerly helpless. He specified the relief on the battlefield, or at the scenes of those great catastrophes which occasionally spring from modern machinery or transportation, and from the daring with which man more and more turns, or defies the forces of nature; and concluded by reaffirming that, judged by any proper tests, antiseptic surgery was undeniably the greatest single scientific achievement of a century, marked by the most numerous and most important achievements of science in any century since history began.

"Whether he convinced everybody, I cannot say. But no one disputed his view."—From the Life of Whitelaw Reid, *Scribner's,* 1921.

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American Social Hygiene Association. — Demands upon the American Social Hygiene Association for its services have increased so sharply during the past six months that this national voluntary organization against syphilis and gonorrhea must raise at least $300,000 annually to do its work, said Dr. William F. Snow, General Director of the Association, in a statement made public recently.

Activities resulting from "Social Hygiene Day," promoted by the Association and observed nationally in February; from Surgeon-General Parran's attack on the venereal diseases; and from the wide publicity in newspapers and magazines and by radio have stimulated an unprecedented volume of requests at Association headquarters, 50 West Fiftieth Street, according to Doctor Snow.

"Groups and individuals throughout the country, aroused at last to the dangers from syphilis and gonorrhea, have been pouring in requests for programs of community action, consultant service, surveys, speakers, films, mechanical lectures, pamphlets, exhibits and statistics," Doctor Snow said. "The volume of requests and inquiries has tripled since syphilis and gonorrhea became mentionables in normal conversation and in the public prints."

To organize the Association's appeal for contributions and memberships, Doctor Snow announced that Donald C. Dougherty of Cleveland has just been appointed an associate director on the national headquarters staff. Mr. Dougherty has been a specialist in institutional money-raising since 1920, with thirty campaigns for funds furnishing his experience for the social hygiene work. In 1927 he organized and managed the campaign which provided more than $8,000,000 for the University Hospitals in Cleveland.

Dr. R. H. Bishop, Jr., also of Cleveland, is chairman of the Association's special finance committee. He was chairman of the $8,000,000 hospital campaign and Mr. Dougherty his assistant. Recently he served as chairman and Mr. Dougherty as secretary of the Ohio Committee of the American Social Hygiene Association. Some of the Ohio activities are to be used as a pattern in other states, Doctor Snow said.

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BOOK REVIEWS

Books received for review are placed in the Library of the California Medical Association, in its central office at San Francisco. Book reviews are written by the Association Secretary.

BOOKS RECEIVED

Synopsis of Digestive Diseases. By John L. Kantor, Ph.D., M.D., Associate in Medicine, Columbia University; Gastro-Enterologist and Associate Roentgenologist, Montefiore Hospital for Chronic Diseases, New York. Cloth. Pp. 302, illustrated. Price, $3.50. St. Louis: The C. V. Mosby Company, 1935.

A Textbook of Surgical Nursing. By Henry S. Brookes, Jr., M.D., Instructor in Clinical Surgery, Washington University School of Medicine; Surgeon to the Out-Patients, Washington University Dispensary; Assistant Surgeon to Barnes Hospital. Cloth. Pp. 636, with 233 illustrations. Price, $3.50. St. Louis: The C. V. Mosby Company, 1937.

Textbook of Diagnostic Roentgenology. By Lewis J. Friedman, M. D., Director, Roentgen-Ray Department, Bellevue Hospital; Instructor in Radiology, New York University College of Medicine; Chief Radiologist, Stuyvesant Polyclinic; Consulting Roentgenologist, Police Department of the City of New York. Cloth. Pp. 623, with 638 illustrations. Price, $10. New York: D. Appleton-Century Company, Inc., 1937.

Pathology. By E. B. Krumbhaar, M.D., Professor of Pathology, University of Pennsylvania School of Medicine. Cloth. Pp. 206, with 18 illustrations. Price, $2. New York: Paul B. Hoeber, Inc., 1937.

Treatment by Diet. By Clifford J. Barborka, B.S., M.S., M.D., D.Sc., F.A.C.P., Department of Medicine, Northwestern University Medical School, Chicago; Formerly Consulting Physician, The Mayo Clinic. Third edition, revised. Cloth. Pp. 642, illustrated. Price, $5. Philadelphia: J. B. Lippincott Company, 1937.

Manual of the Diseases of the Eye. For Students and General Practitioners. By Charles H. May, M.D., Consulting Ophthalmologist to Bellevue, Mt. Sinai, and French Hospitals, New York; Formerly Chief of Clinic and Instructor in Ophthalmology, Medical Department of Columbia University, and Director of the Eye Service at Bellevue Hospital, New York. Fifteenth edition, revised, with the assistance of Charles A. Perera, M.D., Instructor in Ophthalmology, College of Physicians and Surgeons, Medical Department of Columbia University, New York. Cloth. Pp. 498, with 376 original illustrations including 25 plates, with 78 colored figures. Price, $4. Baltimore: William Wood & Company, 1937.

(Continued on Next Page)

NEW MEDICAL BOOKS

Albee: Injuries and Diseases of the Hip	$7.50
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Osgood: Atlas of Hematology	10.00
Rice: Injection Treatment of Hernia	4.50
Schindler: Gastroscopy	7.50

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Flinn, "Laryngoscope" Feb. 1935—Page 152

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Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154 ☐
N. Y. State Jour. Med., June 1935, Vol. 35, No. 11 ☐
Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60 ☐

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BOOKS RECEIVED

(Continued from Preceding Page)

Condition Satisfactory. A Physician's Report of His Own Illness. By Dr. Sandor Puder. With a Foreword by Frigyes Karinthy. Cloth. Pp. 201. Price, $2. New York: Alfred A. Knopf, 1937.

Obstetric and Gynecologic Nursing. By Frederick H. Falls, M.S., M.D., F.A.C.S., Professor of Obstetrics and Gynecology, University of Illinois, College of Medicine; Attending Gynecologist of the Illinois Research and Education Hospital; Attending Gynecologist at Cook County Hospital; Attending Gynecologist and Obstetrician at Grant Hospital, and Jane R. McLaughlin, B.A., R.N., Supervisor of the Department of Obstetrics and Gynecology, Research and Educational Hospital, University of Illinois, College of Medicine, Instructor in the Department of Obstetrics, University of Illinois, College of Medicine. Cloth. Pp. 492, with illustrations by Charlotte S. Holt. Price, $3. St. Louis: The C. V. Mosby Company, 1937.

An Introduction to Dermatology. By Richard L. Sutton, M.D., Sc.D., LL.D., F.R.S. (Edin.), Professor of Dermatology, University of Kansas School of Medicine, and Richard L. Sutton, Jr., A.M., M.D., L.R.C.P. (Edin.), Instructor in Dermatology, University of Kansas School of Medicine. Third edition. Cloth. Pp. 666. Illustrated. Price, $5. St. Louis: The C. V. Mosby Company, 1937.

The Laboratory Diagnosis of Syphilis. The Theory, Technique, and Clinical Interpretation of the Wassermann and Flocculation Tests with Serum and Spinal Fluid. By Harry Eagle, M.D., Passed Assistant Surgeon, United States Public Health Service, Washington, D. C.; Lecturer in Medicine, Johns Hopkins University Medical School, Baltimore, Maryland; Formerly Assistant Professor of Bacteriology, University of Pennsylvania Medical School. With Foreword by J. Earle Moore, M.D., Associate in Medicine, Johns Hopkins University; Physician in Charge of Syphilis Division of the Medical Clinic, and Assistant Visiting Physician, Johns Hopkins Hospital. Cloth. Pp. 440. Price, $5. St. Louis: The C. V. Mosby Company, 1937.

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BOOK REVIEWS

Atlas of Hematology. By Edwin E. Osgood, M. D., University of Oregon Medical School. Cloth. Pp. 255, with 325 colored illustrations. San Francisco: J. W. Stacey, Inc., Flood Building.

There have been printed Atlases good and bad. This is an outstanding good one. The clinician, student, and technician will find it to meet up with their demands. Major stress is placed upon the morphology of the individual cell, but fields are not overlooked. The colored plates are exceptional in their excellence and clarity. Identification is well described and diagnostic characteristics are pointed out. The descriptive text is ample, well stated and satisfying. The entire Atlas merits nothing but praise.

Every laboratory should place this Atlas on its reference shelf. Every clinician will find frequent reference to it most helpful. It would seem that none can well do without it.

The Cost of Adequate Medical Care. By Samuel Bradbury, M. D. Pp. 86. Price, $1. University of Chicago Press.

This is another of the economic series. An attempt is made to determine the cost of adequate medical care. There are many tables and charts. An average cost per person has been placed at $75.75 per year or a mere nine and one-half billion dollars per year. This does not include public health service, dentistry, medicines or supplies. For California this would mean some half a billion dollars per year. The last sentence of this discussion is: "Adequate medical care will cost large sums, and the economic problems involved in paying for it deserve careful study." In this there can be no disagreement, but that fact is lost sight of by enthusiastic proponents and propagandists.

This book merits reading, for it is interesting in figures and comment.

Textbook of Diagnostic Roentgenology. By Lewis J. Friedman, M. D. New York: D. Appleton-Century Company, 1937.

To be at all comprehensive, a textbook of diagnostic roentgenology must be, to a large extent, a textbook of diagnostic medicine, and, therefore, a tome of considerable

(Continued on Page 17)

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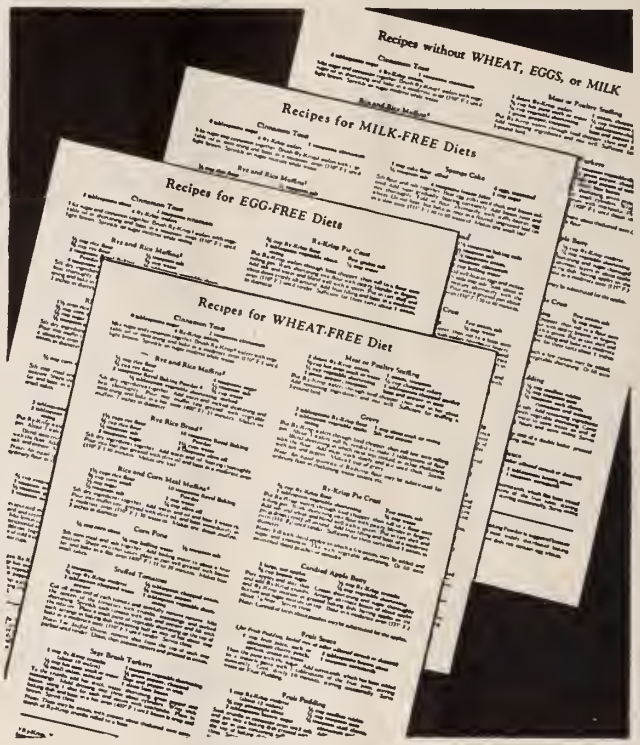

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BOOK REVIEWS

(Continued from Page 15)

proportions. To compress important diagnostic material into convenient size necessitates the omission of much descriptive matter, and the abbreviation of some articles to a point of disastrous brevity. Making allowance for these unavoidable handicaps, the present volume achieves its purpose fairly well. It is as good as any other English text of similar size and scope, but suffers chiefly from two defects. One is an inconsistent arrangement in the discussion of (*a*) the pathology and (*b*) the radiology of a given disorder, and the other is a lack of adequate description of differential diagnoses. The technique of making certain roentgen examinations is described too briefly to be of value to the student or the unsupervised technician. The section on cardiovascular disorders is relatively satisfactory, but that on the respiratory and intestinal tracts is not so good. The discussion of the differential diagnosis of prepyloric lesions should be amplified. Most of the references are to the recent English literature and deal with lesions of the uncommon rather than the common type. The definition of calvaria on page 68 should be corrected; Figure 242 is upside down. On the whole, the book gives one the impression of having been written rather hastily and been padded in sections. The illustrations are fair, but could stand better contrast and, especially in pulmonary disorders, some enlargement. In spite of these defects, the book can be recommended for use in small x-ray departments and in general practitioners' offices. It will not be of great value to the specialist.

A Textbook of Surgical Nursing. By Henry S. Brookes, Jr., M. D., Washington University. Cloth. Pp. 636. Price, $3.50. St. Louis: C. V. Mosby Company.

The title should have been "Surgery for Nurses," as the text relates more to surgery than to surgical nursing, and so too little is said about surgery and far too little about surgical nursing. The illustrations are many, taken in part from standard texts on surgery and as such must be to the pupil nurse quite meaningless and so fail to give better understanding of the text, as illustrations are intended.

Nursing principles are good as far as they go, but should be more complete and specific in outlining the nurses' duty. When another edition is brought forth, it is hoped that these suggestions will be observed.

Laboratory Diagnosis of Syphilis. By Harry Eagle, M.D., United States Public Health Service. Cloth. Pp. 440. Price, $5. St. Louis: C. V. Mosby Company.

The theory, technique, and clinical interpretation of the Wassermann and flocculation tests with serum and spinal fluid is presented. It is more than a laboratory manual. Serologist and physician will find this text most satisfactory in its helpfulness and reliability. It is practical. Sources of error in technique and interpretation are well and clearly described.

Condition Satisfactory. By Dr. Sandor Puder. A Physician's Report of His Own Illness. Cloth. Pp. 200. Price, $2. Alfred A. Knopf, Inc.

If this had been written by a lay person, one would toss the book aside and remark, "Imagination plus fabrication." Anyhow the book is tossed aside with wonderment that a physician could descend to such an assinine state as to write such "piffle," distort and misstate conditions and exaggerate to the extent that this person has. Knowing he had appendicitis he delays five days before calling a surgeon, thinking he might avoid an operation! Then moans because an appendiceal abscess is drained. Enough said. Save your money for a well-written detective story.

Annual Reprints of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1936, with the Comments That Have Appeared in the Journal. Cloth. Price, $1. Pp. 104. Chicago: American Medical Association.

This book is essentially a record of the negative actions of that distinguished body, the Council on Pharmacy and Chemistry of the American Medical Association; that is, it sets forth the findings concerning medicinal preparations which the Council has voted to be unacceptable for recognition and use by the medical profession. Many of the re-

(Continued on Page 19)

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BOOK REVIEWS

(Continued from Page 17)

ports record outright rejection or the rescinding of previous acceptances; others report in a preliminary way on products which appear to have promise but are not yet sufficiently tested or controlled to be ready for general use by the profession.

Among the reports on out-and-out unacceptable products are Amend's Solution and the "Igol" products, iodin preparations marketed under misleading or unacceptable claims, the latter under an uninformative proprietary name; Androstine (Ciba), claimed to be a testicular extract and found to be an irrational combination of inactive preparations, marketed with unwarranted and misleading claims; Gadoment, a preparation of cod-liver oil in a wax base with zinc oxid benzoin and phenol, proposed for use in the treatment of burns, cuts, and minor skin irritations, found unacceptable as being an unoriginal product of insufficiently declared composition marketed under a coined proprietary name with unwarranted therapeutic claims, and indirectly advertised to the public; the "Carasyl" preparations, which are essentially mixtures of psyllium flour, karaya gum and fig flour, marketed with unsubstantiated therapeutic claims under a proprietary name.

In 1934 the Council sponsored an exhaustive report on bacteriophage therapy which pointed out that, in view of the present status of knowledge, no such preparations could be accepted for New and Nonofficial Remedies. In this volume of the collected Council reports, the Council declares the "Phagoid" preparations, a line of bacteriophage products, definitely unacceptable because they are offered to the medical profession with unscientific, unwarranted claims, thus encouraging physicians to use in a routine way medicaments, the therapeutic value of which had not been established, and because the preparations conflicted in other ways with the rules of the Council.

This volume includes a preliminary report on Trichophytin and Oidiomycin-trichophyton preparations marketed by Lederle Laboratories, Inc. This report is a sequel to the preliminary report on Trichophyton Extract issued in 1932, which postponed consideration to await development of further clinical evidence on Trichophyton therapy. Also included in this volume is a report on the unacceptability of two trichophyton preparations, Dermatomycol and Dermotricofitin, distributed in this country by Ernst Bischoff Company, Inc., under the stated proprietary names without sufficiently declared composition and with unwarranted therapeutic claims.

Other preliminary reports are Refined and Concentrated Antipneumococcic Serum Type VII—Lederle, Present Status of Tetrachlorethylene (since accepted for New and Nonofficial Remedies), Smallpox Vaccine (From Chick Chorio-Allantoic Membrane)—Lilly, and Use of Trichloroethylene for General Anesthesia.

New and Nonofficial Remedies, 1937. Containing Descriptions of the Articles Which Stand Accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1937. Cloth. Price, $1.50. Pp. 557, LXIV. Chicago: American Medical Association, 1937.

The annual editions of this volume contain all that the busy physician needs to know concerning the newer preparations which he is daily importuned by the detail men of the pharmaceutical manufacturers to use. The remedies listed and described here have been examined and found acceptable by the Council on Pharmacy and Chemistry, the deliberative body charged by the American Medical Association with the performance of this service for the practitioner, who has not the time or means to make the determinations for himself.

(Continued on Next Page)

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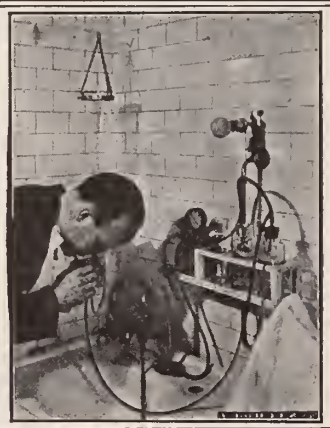

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BOOK REVIEWS

(Continued from Preceding Page)

Some new drugs have been added in the 1937 edition, the descriptions of which will be found in the groupings to which they belong. There are some noteworthy changes in classification. The various vasoconstrictors—Benzedrine, Ephedrine, Epinephrine and Neo-Synephrin, have been grouped together as phenylalkylamine derivatives under the heading "Epinephrine and Related Preparations." The terminology is in keeping with the Council's policy of avoiding therapeutically suggestive names. Another similar change is the abandonment of the classification "Medicinal Foods" and substitution of a chapter under the title "Vitamins and Vitamin Preparations for Therapeutic and Prophylactic Use" in the previous edition. The consideration of other classes of food preparations was long ago transferred to the Council on Foods. The chapter, "Organs of Animals," which has heretofore included only endocrine preparations, has been expanded by transfers to this heading of the chapters, "Liver and Stomach Preparations," and "Insulin."

The book contains general articles, descriptive of the classification under which the various drugs are listed. According to the preface, more or less thorough-going revisions have been made of the articles: Arsenic Compounds; Compounds Containing Trivalent Arsenic; Compounds Containing Pentavalent Arsenic; Bismuth Compounds; Epinephrine and Related Preparations; Iodine Compounds; Iodine Compounds for Systemic Use; Mercury and Mercury Compounds; Pituitary Gland; Salicylic Acid Compounds; Serums and Vaccines; antipneumococcic Serums; Silver Preparations; Tannic Acid Derivatives.

An Introduction to Dermatology. By Richard L. Sutton, M.D., Sr., and Jr. Cloth. Pp. 666. Price, $5. Third edition. St. Louis: C. V. Mosby Company.

A text primarily for students. Presenting essentials and fundamentals. Revised to date in conformity to newer accepted principles and conceptions. Will be found helpful to the general practitioner.

Learning stops only when ambition halts.

TWENTY-FIVE YEARS AGO

(Continued from Text Page 216)

should be ashamed of themselves; they have money enough to publish the *Annals* without taking the nostrum money they get from these few advertisements. But probably so long as men of the class mentioned will write articles for the *Annals*, the publisher will continue to aid in promoting nostrums. . . .

* * *

Collecting Accounts.—Elsewhere in this issue will be found an article by Doctor Kress on the collection plan of the Los Angeles County Association. The "pasters" to which he there refers, and which he says have made every man who uses them his own collection agency, can be recommended very highly. They certainly do get results and they get them without producing offense. . . .

* * *

Epidemic of Poliomyelitis.—An epidemic of poliomyelitis, or infantile paralysis, broke out in Los Angeles in June; it seems to have been reported first on June 10. Almost immediately cases were noted in the beach resorts near the city and very rapidly the disease was found in other counties. Cases have occurred in Riverside, Ventura, Merced, Sacramento, San Joaquin, and San Francisco Counties. A number of places, notably Pasadena, San Diego and some of the San Joaquin Valley points, have either taken steps to quarantine against Los Angeles and that section, or have urged, through their respective health officers, that such measures be taken. In Los Angeles the gravity of the epidemic was at once recognized by Doctor Powers, the health officer, and a special committee was appointed by the mayor to handle the situation. Up to August 11, 205 cases with forty-one deaths were reported in Los Angeles. The death rate is not the most important factor in considering the gravity of such an epidemic, for the disease leaves some 90 per cent of its victims crippled for life. . . .

(Continued on Page 22)

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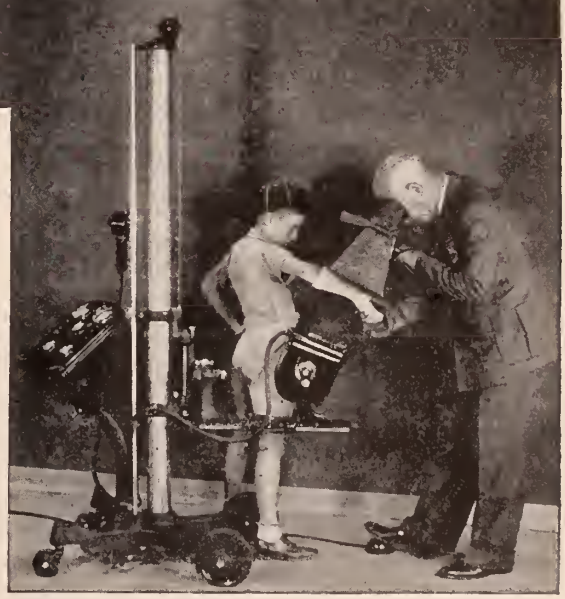

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TWENTY-FIVE YEARS AGO

(Continued from Page 20)

From an article on "Symposium on the Wassermann Reaction and Salvarsan Treatment in Syphilis. By Walter V. Brem, M. D., Los Angeles.—The value of the Wassermann test is no longer a question open for discussion. Its great value in syphlitic infections as a diagnostic measure, as a guide in the treatment of the disease, and as the only criterion of cure, has been so abundantly proved by competent investigators that the presentation of further statistics regarding the percentages of positive and negative reactions in various clinical conditions and stages of the disease, is but to carry "coals to Newcastle." In other words, the test has already been so carefully scrutinized by able men in the light of clinical phenomena, that clinical reports at variance *with established values obtained by properly conducted tests* demand the exhaustion of at least two lines of investigation before the test itself can be attached. . . .

From an article on "Progress in the Diagnosis and Treatment of Syphilis." By Ernest Dwight Chipman, M.D., San Francisco.—The transitional stage through which syphilology has been passing in recent years makes much of its literature obsolete. This is particularly true of those chapters devoted to etiology, diagnosis and treatment, each of which must now be written anew. The particular events which make this necessary are the discovery of a specific causative organism, the development of serological tests and the addition of salvarsan to our therapeutic armamentarium. These were all dramatic events; so much so that, without minimizing their value, it may be pointed out that there exists the danger of other factors which are not unimportant, being relegated into comparative obscurity. . . .

From an article on "The Abortive Treatment of Syphilis." By Howard Morrow, M. D., and L. S. Schmitt, M. D., San Francisco.—As soon as it became evident that salvarsan would not effect a cure in all cases of syphilis, it was logical to turn toward a combination of this drug with mercury to obtain the desired result.

Numerous cures by the use of salvarsan have been reported but many of them will not stand the test of time or close investigation. All of us have seen patients with early manifestations of lues to whom salvarsan has been given, and in whom there has been a return of syphilitic lesions. This is usually seen in patients who have received but one intravenous injection of salvarsan, and seldom occurs when mercury is given in addition. . . .

From an article on "Salvarsan vs. Mercury." By Victor Vecki, M. D., San Francisco.—The experience medical science has had with mercury extends over centuries and still we do not know all about what it could do. With salvarsan we are just flirting; and while the literature on the subject has already become enormous, and while some syphilologists have had the occasion to employ the arsenobenzol in a great many cases, the experience of the most emphatic, of the most enthusiastic, and of the most eloquent supporters is limited at least in regard to time. . . .

From an article on "Salvarsan in Various Medical Disorders Associated with a Wassermann Reaction." By William Fitch Cheney, M. D., San Francisco.—It is the object of this paper to review the cases seen in the medical wards of Lane Hospital between January 1, 1911, and April 1, 1912, where a Wassermann reaction was present and salvarsan was given. For keeping the records of these patients much is due to the assistance of Dr. P. H. Luttrell, to whom acknowledgment is herewith gratefully made. To call these cases visceral syphilis is not altogether accurate, because they include manifestations in structures not correctly defined as viscera; and because even where viscera seemed involved none of these patients came to autopsy to confirm the suspicion. The cases observed and herewith

(Continued on Page 24)

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TWENTY-FIVE YEARS AGO

(Continued from Page 22)

presented number fifty-one in all; but many of these had salvarsan more than once, so that the total number of injections considerably exceeds this figure. . . .

From an article on "General Anesthesia in Cataract Work." By Vard H. Hulen, M. D., San Francisco.—None of the textbooks on ophthalmology give as much space to the discussion of this subject as its importance demands. Some authorities do not mention it at all, now and then a writer may recommend it for more general adoption, others condemn it absolutely excepting in the case of children and adults known to be wholly irresponsible. Concerning its use in these two classes there can, of course, be no difference of opinion. It is interesting to note that one author of broad experience says that he has never done a cataract operation under general anesthesia, while another operator reports having extracted the cataracts from both eyes at one operation under chloroform anesthesia with excellent results in each eye. . . .

From an article on "Radiological Investigation of the Diseases of the Stomach." By C. M. Cooper, M.B., and G. L. Painter, M. D., San Francisco.—The introduction into medicine of the bismuth test meal whether due to Rieder or Courmelles forms a landmark in the progress of the study of diseases of the stomach, the importance of which even today is recognized in only a few clinics. . . .

From an article on "The Clinical Features and Neurological Findings in Poliomyelitis." By Thomas J. Orbison, M. D., Los Angeles.—The chronology of the nomenclature of the disease under discussion would indicate the uncertain steps by which we have arrived at the present name. It is marked by the clearly unsatisfactory names "Heine-Medin disease," "infantile paralysis," "infantile cerebral palsy," and the equally unscientific "epidemic paralysis." Even the name "anterior poliomyelitis" is giving way to that of "poliomyelitis." . . .

News Notes From Newspapers.—. . . The Lane Medical Library building has been completed. It is located at Sacramento and Webster streets, San Francisco, and is open to all physicians. Its stacks will hold eighty thousand volumes and thirty thousand can be added when needed. . . .

BOARD OF MEDICAL EXAMINERS

(Continued from Text Page 216)

"Trapped in an alleged fraudulent insurance scheme, an Oakland attorney, a physician, and a woman were arrested yesterday on charges of attempted grand theft. The attorney, Emile Grossman, with offices at 1916 Broadway, was seized while he was hiding, fully clothed, in the bathtub of his home at 6216 Racine Street, with the shower curtains wrapped around him. The physician, Dr. Louis Kameny, was taken into custody at his offices at the Broadway address, while the woman, Mrs. Adrienne Udstone, 416 Twenty-fifth Street, was apprehended as she waited to keep an engagement with Grossman at his office. The arrests were made following complaint of Mrs. Anna Boggs, operator of a beauty parlor . . . who charged the three and coöperated in an attempt to obtain $500 in settlement from an insurance company for an injury claim involving a burn which Mrs. Udstone claimed to have suffered while getting a permanent wave. Mrs. Udstone, according to Deputy District Attorney J. Frank Coakley, admitted a prison record in Minnesota as a shoplifter. She and Doctor Kameny made a statement to District Attorney Earl Warren, but Grossman remained silent other than to deny knowledge of the transaction, investigators said. Mrs.

(Continued on Page 26)

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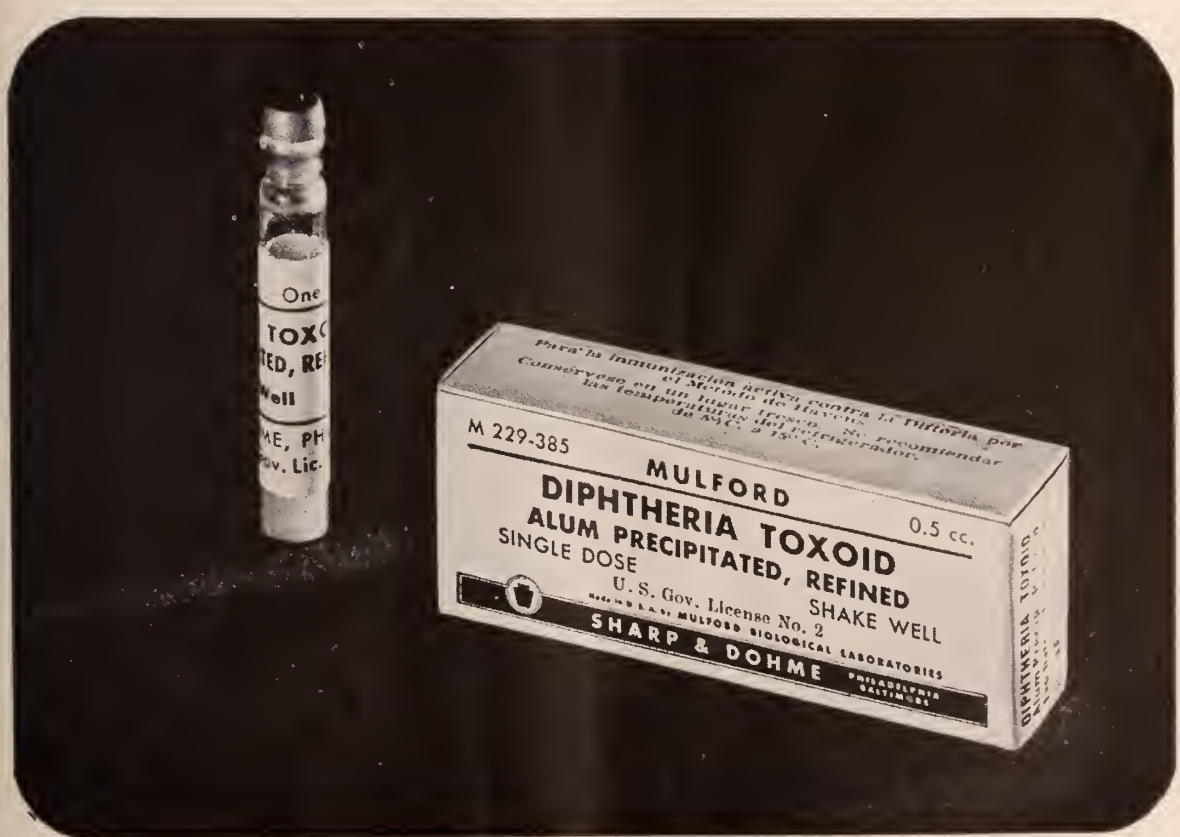

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BOARD OF MEDICAL EXAMINERS

(Continued from Page 24)

Boggs told District Attorney Warren that Mrs. Udstone first visited her shop on April 13, and while being given a permanent wave, suddenly complained of having been burned and exhibited a red spot on her scalp. On April 23 Grossman appeared and persuaded Mrs. Boggs to take out a beauty parlor liability insurance policy, explaining he knew a physician who would date Mrs. Udstone's injury after the date of the policy. Mrs. Boggs, suspicious, notified Warren and proceeded to apply for a policy. After the policy was issued, a claim for $500 was filed. The date of the alleged injury to Mrs. Udstone was given as May 21. The 'injury' was declared 'permanent.' The arrests were made after Mrs. Udstone accepted a compromise check for $350 and signed a release." (San Francisco *Chronicle,* July 25, 1937.)

"Formal complaints against Dr. John E. Baker and Dr. G. O. McKeehan, held in county jail on conspiracy charges involving a faked accident syndicate, will be filed today, according to Deputy District Attorney George Stahlman. . . ." (Los Angeles *Journal,* August 7, 1937.)

"Charged with inflicting torture on themselves to obtain damages for faked auto accidents, four women and two men were under arrest today in connection with the drive against the asserted $1,000,000 a year insurance fraud. The new arrest closely followed the holding of two physicians, Doctors John E. Baker and Guy McKeehan, who are charged with participating in the widespread plots. In every case, according to investigators, the two men arrested in the case acted as 'master minds' in the assertedly trumped-up damage suits. These men, George Dorris and Joseph Boone, are accused of hiring men to drive insured autos and make fake accident reports. They are said to have obtained citizens to mutilate themselves, some breaking their own arms and others inflicting bodily bruises so they could appear in court and seek damages. Those arrested last night gave their names as Mr. and Mrs. Peter de Nooy, Mr. and Mrs. George Elroy and Mrs. Etta Wunderlich and Mrs. Anna Howard." (Press dispatch, dated Los Angeles, August 7, 1937, printed in the San Francisco *Call-Bulletin* the same day.)

"The preliminary murder hearing of Dr. Max Hickok, Chiropractor, whose father, Dr. Galen R. Hickok, was sentenced to San Quentin twenty years ago for operating an 'abortion castle' at Salada Beach, was to be resumed today in San Francisco. The Chiropractor was linked by three witnesses at the opening of his hearing yesterday with the abortion death of Mrs. William Sowers, 46-year-old Oakland mother of three children. . . . Mrs. Helen Zach, receptionist at Doctor Hickok's office in San Francisco, told of seeing the Oakland woman enter the Chiropractor's office, and Walter Sowers, the husband, said Doctor Hickok tried to get him to sign a release after the operation." (San Mateo *Times,* July 2, 1937.)

"Dr. Young D. Hahn, 'the man who came back from the dead' four years ago, found life again ensnarled in difficulties yesterday. As the aftermath of a terrific predawn battle between two young women, allegedly over his affections, the dapper 40-year-old Korean physician was in jail on suspicion of assault with a deadly weapon. . . ." (Los Angeles *Examiner,* July 8, 1937.)

"A recent Associated Press dispatch from Los Angeles begins:

" 'Criminal degenerates, since the first of the year, have seized, tortured and slain seven women and girls in Los Angeles. Scores of other women and girls escaped similar fate at the hands of sex-mad prowlers, who were frightened or beaten, and fled.'

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"A lovely situation, is it not? And it becomes even lovelier when you consider the significance of these words from Police Chief Davis of Los Angeles, which were quoted in the same dispatch:

"'We earnestly urge that parents be alert in watching over their children, and that they report all suspicious characters and incidents in their neighborhoods to the police immediately.'

"That can only mean that, bad as the situation is, the police have very little confidence in their ability to deal with it effectively. And after seven such murders and 'scores' of attempted assaults in six months' time, the police probably are justified in their modesty. But what is going to be the end of it? Is the time soon to come when no woman or girl can walk unescorted in California, even in broad daylight, with any reasonable expectation of safety? The question seems preposterous, and it ought to be—but look at the facts." (Sacramento *Bee*, July 13, 1937.)

"Assertedly representing themselves falsely as physician and nurse, while operating a clinic at 904 West Twentieth Street, Manuel German, forty-three years of age, and Mrs. Carmen Yglesias, sixty-two, were arrested last night on charges of violation of the State Medical Practice Act. They were arrested by John R. Ronan, officer for the State Medical Board, after he underwent treatment which he later said was fraudulently administered as a cure for what German assertedly diagnosed as inflammation of the bones. Ronan said he was charged $50 for the first treatment given yesterday. . . ." (Los Angeles *Times*, July 11, 1937.)

"At the conclusion of three days of revelations concerning operations of the Spiritual Psychic Science Church, Superior Judge Thomas C. Gould yesterday revoked the license of the Rev. Charles E. Kelso, self-appointed archbishop. 'It appears this organization was a one-man propo-

(Continued on Next Page)

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BOARD OF MEDICAL EXAMINERS

(Continued from Preceding Page)

sition, run for profit and profanation of the word "religion" and all we hold sacred,' Judge Gould said. The institution, which the State charged was nothing more than a 'diploma mill' that peddled ordinations indiscriminately, was composed of 1,400 'ministers,' but no laymen, it was revealed during the hearing. Some of those ordained used the 'diplomas' to get half-fare rates on railroads and steamship lines. . . . Joe Penner's duck was ordained a doctor of divinity for $10—credit. A Mrs. George Davis was ordained as 'Nellie Dumbkluck'—the price, one bulldog. Fulton Oursler, editor of a weekly magazine, was made a 'bishop-at-large,' a doctor of divinity, and a minister, all for $40. U. L. DiGhilini, noted exposer of 'psychic rackets,' told about the ordination of Penner's duck. 'I went to the Reverend Mr. Kelso with an application for an ordination and said that the person that I represented, Drake Googoo, had psychic powers and wished to be ordained. Joe Penner was given as a reference, together with Mae West and Warner Baxter,' he testified." (Los Angeles *Examiner*, July 21, 1937.) Some years ago a similar organization was incorporated in this State, and it was reported a number of chiropractors, et al., were ordained, this for the purpose of attempting to evade the provisions of the Medical Practice Act. Those ordained anticipated they would be able to conduct the practice of the healing art under that provision of Section 22 of the Medical Practice Act which relates that the Act shall not be construed so as to "prohibit or apply to any kind of treatment by prayer, nor to interfere in any way with the practice of religion."

"Dr. H. H McCoy, prominent Long Beach physician, said he wanted his $2 witness fee before he would appear in court as a witness in a civil suit. That was several days ago when he was served with a subpoena to appear in the case. Today his refusal to come before Superior Judge Myron Westover to give medical testimony in the case which was then on trial had cost him $100, making a net loss of $102. Judge Westover fined him the $100 for contempt of court, after deputy sheriffs brought him in on a bench warrant. He paid the fine." (Los Angeles *Herald-Express*, July 16, 1937.)

"Elmer R. Cummings, of Julian, yesterday pleaded guilty to violation of the State Medical Practice Act, and was given the choice by Municipal Judge Joe Shell of spending fifteen days in jail or pay a $30 fine. W. H. Anderson, inspector for the State Medical Board, claimed that Cummings had prescribed for stomach ailments without having a physician's license." (San Diego *Tribune*, August 3, 1937.)

"Dr. Thomas O. Luckett, the 57-year-old physician who is said to have come to El Centro from the Panama Canal zone in 1912 with $100,000, is now en route to San Quentin penitentiary, broken in spirit as well as in finances. The aging doctor cannot receive less than two years nor more than five for his conviction in Superior Court two weeks ago on a charge of performing an abortion on a young girl in his El Centro office May 9. . . . Judge Vaughn Thompson yesterday refused probation after a motion for a new trial had been denied. . . . E. A. Nance, Probation Officer, had recommended the doctor be denied probation. Doctor Luckett left for San Quentin this morning in charge of Deputy Sheriff Frank Raney. . . ." (Calexico *Chronicle*, July 30, 1937.)

"Coincident with the detention here of Frank Faircloth, alias Doctor Pierce, on federal mail fraud charges, post-office inspectors, seeking to break up one of the most heartless rackets in the country, yesterday warned the public to beware of asserted fake eye specialists. Faircloth, awaiting trial in Long Beach on a State charge, has been indicted by the federal grand jury in Milwaukee, Wisconsin,

(Continued on Page 30)

"IT HAS BEEN ESTIMATED[1] that in the United States annually one-half million people with late syphilis seek treatment for the first time. . . ." It is hoped that these figures will be reduced as a result of the many publicity campaigns now under way. These patients will require careful supervision and persistent treatment.

Two Squibb preparations — Neoarsphenamine and Iodobismitol with Saligenin—have been found to be very effective in the treatment of syphilis. Neoarsphenamine Squibb is designed to produce maximum therapeutic benefit. It is subjected to exacting controls to assure a high margin of safety, uniform strength, ready solubility and high spirocheticidal activity. Equally effective when indicated are Arsphenamine Squibb and Sulpharsphenamine Squibb.

Iodobismitol with Saligenin is a propylene glycol solution containing 6 per cent sodium iodobismuthite, 12 per cent sodium iodide and 4 per cent saligenin (a local anesthetic). It presents bismuth largely in anionic (electro-negative) form. Iodobismitol with Saligenin is rapidly and completely absorbed and slowly excreted, thus providing a relatively prolonged bismuth effect. Repeated injections are well tolerated in both early and late syphilis.

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[1] Cole, Harold N., *et al.; J. A. M. A.* 108:22, 1937.

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Bequest Forms: Unto the California Medical Association*

FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I hereby give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of $——— to be known as the ——— Gift, to be used and expended by said corporation for scientific, educational, or hospital purposes.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of $———, to be held as a fund, to be known as the [here insert name desired] Fund, the principal whereof shall from time to time be invested to the best advantage compatible with safety, and the income whereof shall be used and applied for scientific, educational, or hospital purposes.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR BEQUEST OF PERSONAL PROPERTY

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used and applied for scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California, to aid and further its scientific, educational, and hospital purposes, and to be known as the ——— Gift, the following described real property situate in the County of ———, State of California, and more particularly described as follows, to wit:

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used for and applied to the support and maintenance of scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

* These Bequest Forms were discussed editorially in CALIFORNIA AND WESTERN MEDICINE, for March, 1936, p. 145, and June, 1936, p. 460.

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BOARD OF MEDICAL EXAMINERS

(Continued from Page 28)

for misuse of the mails in carrying out his asserted malpractice scheme, Postoffice Inspector C. D. Lowe said yesterday. The 'eye specialist' is also wanted to face similar charges in Mississippi, it was said. . . . Inspector Lowe said that there were approximately one hundred fake doctors carrying out similar frauds throughout the country. The usual method of operation, he said, was for an advance man to go into a territory and find some woman of means who was in need of treatment. . . . Pending disposition of the State charge against Faircloth he will be held on the federal charge. His bail was set at $5,000." (Los Angeles *Times,* August 6, 1937.) See article on Eyesight Swindlers, printed in the 1937 Annual Report of the Board of Medical Examiners.

"Dr. F. N. Folsom, 70-year-old Santa Rosa physician, who was found guilty Tuesday by a jury in justice court of illegally prescribing narcotics to Roland Reed, drug addict, was fined $250 by Judge L. E. Fulwider today. . . . The elderly physician was convicted by a jury of ten men and two women on one of twelve counts after a two-day trial. In returning its verdict of guilty, the jury recommended leniency for Doctor Folsom. . . . Although the conviction carried with it a maximum sentence of $500 or six months' imprisonment, or both, Judge Fulwider stated he had given consideration to the defendant's age and set Doctor Folsom's fine at $250. The physician was given thirty days in which to pay the fine." (Santa Rosa *Republican,* August 5, 1937.)

According to reports from Porterville, Tulare, Visalia, Stockton, and Sacramento, narcotic addicts are again stealing physicians' bags from their automobiles. The Porterville *Recorder* of August 2, 1937, relates that "Harry Perry, state narcotics officer, called in by the local depart-

(Continued in Back Advertising Section, Page 34)

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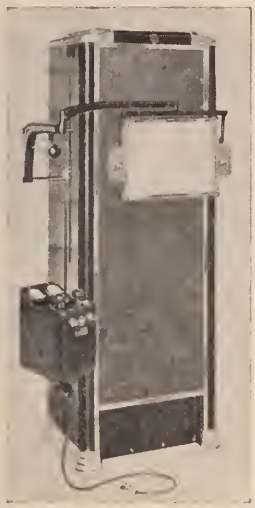

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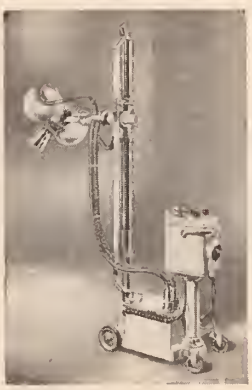

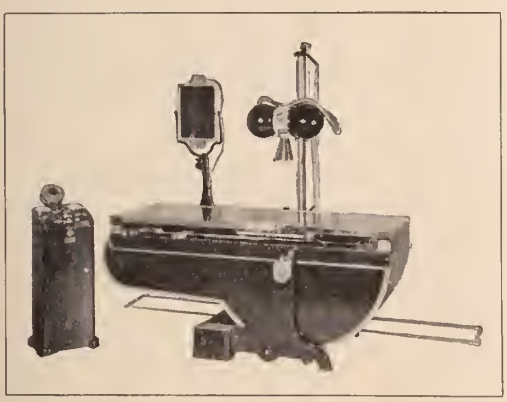

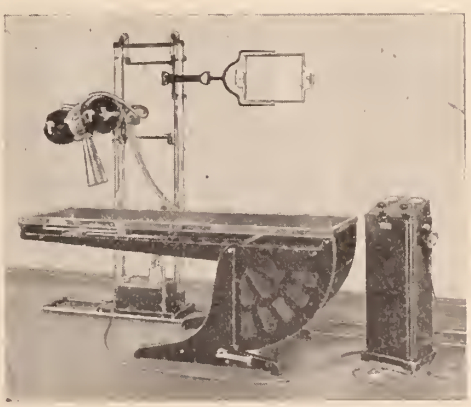

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CALIFORNIA AND WESTERN MEDICINE

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EDITOR . . . . . GEORGE H. KRESS

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BUSINESS MANAGER . FREDERICK C. WARNSHUIS

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Change of Address.—Request for change of address should give both the old and the new address. No change in any address on the mailing list will be made until such change is requested by county secretaries or by the member concerned.

Responsibility for Statements and Conclusions in Original Articles.—Authors are responsible for all statements, conclusions and methods of presenting their subjects. These may or may not be in harmony with the views of the editorial staff. It is aimed to permit authors to have as wide latitude as the general policy of the Journal and the demands on its space may permit. The right to reduce or reject any article is always reserved.

Contributions—Exclusive Publication.—Articles are accepted for publication on condition that they are contributed solely to this Journal. New copy must be sent to the editorial office not later than the fifteenth day of the month preceding the date of publication.

Contributions—Length of Articles: Extra Costs.—Original articles should not exceed three and one-half pages in length. Authors who wish articles of greater length printed must pay extra costs involved. Illustrations in excess of amount allowed by the Council are also extra.

Leaflet Regarding Rules of Publication.—CALIFORNIA AND WESTERN MEDICINE has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

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EDITORIALS†

COMMENTS ON HEALTH INSURANCE: BY AN ENGLISH AUTHORITY, SIR HENRY B. BRACKENBURY

Sir Henry B. Brackenbury Visits California. During a brief stay in California, in August just passed, Sir Henry B. Brackenbury, Chairman of the Council of the British Medical Association, while en route to New Zealand, where he has been requested to act in an advisory capacity to the medical profession of that land, was the natural recipient of fraternal hospitalities; and while in Los Angeles, as the guest of honor at a dinner tendered him by Dr. Clarence G. Toland, ex-president of the California Medical Association, he made some informal comments, giving his observations of the way in which health insurance has worked out in England, Wales and Scotland.

* * *

Some Facts About Britain's Panel System.—Britain's registry of physicians contains the names of about 50,000 practitioners, of whom about 18,000 are panel physicians, caring for some 18,000,000 citizens under employment, who come within the scope of Britain's health insurance laws. The yearly sum paid by the public authorities for each workingman so covered is thirteen shillings, nine shillings of which are given to the physician to cover all costs of care for the individual; of the remainder, about one and one-half shillings going to the pharmacist, the two and one-half shillings that is left being set aside for mileage and special expenses. Sir Henry has had much to do, on behalf of the medical profession, with the establishment of the rates and rules in Britain, and gave as his opinion that the British arrangement is one that, on the whole, is satisfactory to the 18,000 general practitioners on the panels for this work, and that both patients and physicians are better served, under the medical practice conditions there today with this group of the population, than with those conditions in vogue before the advent of health insurance.

* * *

Some Interesting and Important Stipulations.—However, when asked about the probable applicability of the British health insurance system to the United States, he said that he felt he was

†Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column which follows.

not in possession of sufficient first-hand knowledge to express a worth-while opinion. He did, however, point out some of the major factors which he construed as having been most important in the successful development of Britain's system, among which are the following:

1. The homogeneity of the race in England, Scotland and Wales, and the likeness of the psychical background of the people of those English-speaking states.

2. The homogeneity of the medical profession, in so far as race-type and general professional training and outlooks are involved; in contrast, for instance, to California, with its separate licensing boards for doctors of medicine, doctors of osteopathy and doctors of chiropractic and widely varying educational and other standards; or to the United States, where each of the forty-eight states, as an expression of police power in safeguarding the health and lives of its people, could set up systems of healing art licensure as diverse as exist today in some of the individual commonwealths. To be noted also, in passing, is the fact that in the United States a national standard of licensure would be unconstitutional, because it would infringe upon those police powers guaranteed by the Constitution of the United States.

3. The existence in Britain of the permanent civil service personnel, which has continuous and real authority to carry out the acts and laws of Parliament, no matter what political group may name the nominal heads of the governmental departments.

Without such expert, impartial and nonpolitical supervision, he was of the opinion that a health insurance system such as exists in England, Scotland and Wales would in the United States, from the beginning, be enormously handicapped in its organization, and prove practically impossible of successful development. The distinguished speaker emphasized also, as his personal opinion, that it was doubtful, therefore, whether a successful health insurance system could be created here under conditions wherein political forces would be in major authority.

* * *

These Stipulations Must Be Kept in Mind in Discussions of Health Insurance Systems.—Few authorities are more often quoted in connection with Britain's system of health insurance than Sir Henry B. Brackenbury, on which account his frank comments to the group of Los Angeles physicians who were present at the dinner in his honor, and who took part in asking questions, are worthy of special consideration. They are commended especially to the careful, considered and continued thought of all American physicians who, enamored of social health insurance as it exists on the European Continent and in Britain, constantly refer to those lands as examples with successful health insurance models, to be patterned after. Sir Henry's analysis of some of the essential component elements, so absolutely necessary in the building up of a successful health insurance system under state supervision, includes factors that, under present political conditions, practically make impossible the creation of similar organizations in the United States, either as part of a federal program or as commonwealth efforts within the several states of the Union.

* * *

To Summarize.—To repeat, the facts brought out by Sir Henry emphasize the need of clear and logical thinking in the espousal of so extensive a social experiment as health insurance, under control of either federal or state governments. It is important that theoretical aspirations be not permitted to cloud our reasoning to such extent that we blind ourselves to the conditions which a health insurance system must have in order to be successful; and that, if these conditions do not exist in the United States and its constituent commonwealths, it is not good sense to parade the European systems as worthy of duplication. Experience, as intimated by Sir Henry B. Brackenbury, would soon bring into searchlight the deplorable results sure to follow from such illogical imitation.

CONFERENCE OF C. M. A. STANDING COMMITTEES, COUNTY SOCIETY SECRETARIES, AND STATE ASSOCIATION OFFICERS

Conference Will Be Held in San Francisco.—Attention was recently called* to the action of this year's House of Delegates at Del Monte, in authorizing the first mid-year session of members of the standing committees of the California Medical Association, to be held with county society secretaries and officers of the State Association. Because conventions of laymen will so meet in Fresno on the date previously designated, and owing to the inability of President-elect Irvin Abell of the American Medical Association to be present at that time, the Council of the Association, at its meeting in San Francisco on August 15, designated San Francisco as the place of conference, and the probable date, Saturday, October 2.

* * *

Association News Department Gives Program Information.—In the Association News Department of this issue,† additional information is given concerning the program. It is urged that chairmen of the standing committees correspond with their respective members, so that reports submitted will represent an expression of thoughtful consideration. A mid-year conference, attended by the executive officers and committeemen of the State Association, with presence of the executive officers of the component county units—the county society secretaries—and their coöperation in discussion, is what might be termed a "Conference of the Committee on the State of the Association."

It is our opinion that these mid-year meetings of officers and committeemen can be productive of great value to the State Association and its component county societies, if all who have responsibilities will but meet their obligations in proper measure. Wherefore it is to be hoped that this first mid-year session will be so successful in results that it will demonstrate the value of the plan as a permanent institution.

* See July issue, page 2, of CALIFORNIA AND WESTERN MEDICINE.

† See page 201.

ENDOWMENT FUND OF CALIFORNIA MEDICAL ASSOCIATION BY MEMBERS IS STARTED

Bequest Forms Are Printed in Each Issue of "California and Western Medicine."—CALIFORNIA AND WESTERN MEDICINE, on page 145 of the March, 1936 issue, and page 460 of the June number of the same year, called attention to some bequest forms which it stated would be printed thereafter in each issue of the Official Journal,* and mentioned that the nonprofit corporation, "Trustees of the California Medical Association," had been brought into existence for the express purpose, in part, of receiving and acting as custodian of bequests designed to promote the scientific, educational and hospital purposes of the California Medical Association. For the information of members, the articles of incorporation of this nonprofit corporation were printed on page 541 of the June, 1936, issue. The above references are given in order that readers who failed to note the articles may have opportunity to consider their content and the important policies therein outlined.

* * *

Friends and Patients of Members Can Make Bequests.—Among the members of the California Medical Association, and certainly among the thousands of friends and patients of members, are many persons who are possessed of material resources, sufficient to permit them to contemplate bequests, in greater or less amounts, that could continue on through the years, to serve purposes in which the donors had special interest, and that at the same time, would be memorial monuments of more enduring and useful nature than those shaped of stone or bronze.

The bequest forms printed in each issue of the Official Journal are inserted as reminders to members, both for themselves and their friends, and are given to make easy, and confidential, the drafting of a bequest section or codicil in a will, for such amount or type as a donor might wish and be able to make.

* * *

Donations by Members to the General Membership Endowment Fund.—In the Association Activities department of CALIFORNIA AND WESTERN MEDICINE, Secretary Warnshuis recently suggested the beginning of what might be called a General Membership Endowment Fund,† to which members could contribute in sums of one hundred dollars, in manner somewhat as they would pay an initiation fee to a club, where membership was desired and appreciated. This method is simpler, even, than making a bequest through provision in a will, and is one that each and every member could institute, at such time as the spirit was willing, and the pocket-book resources were available.

* * *

Ex-President Robert A. Peers of Colfax Becomes the First Donor.—It is most gratifying to be able to record in this issue, on page 199, that a beginning in this General Membership Endowment Fund (which would be under the custodianship of the "Trustees of the California Medical Association") has been made through the donation by Ex-President Robert A. Peers of Colfax, whose letter of transmittal is also given place.

May the hope be expressed, that other members of the California Medical Association will feel the urge to also become members or fellows of this group, so that, from month to month, in CALIFORNIA AND WESTERN MEDICINE, it may be possible to print the names of members who have joined in this effort to promote the interests of scientific medicine in California? Our State Association acts as the guardian and protector of our individual and collective professional interests, and can give returns in efficient service to each and all of us, in proportion as we, ourselves, support it and give it the means necessary, that it must have, if its work is to be carried on in fullest measure. If you have a 100-dollar balance that is not working to best advantage in other lines, why not transfer its custodianship for all time to come to the California Medical Association, an organization in which each and every member may take real pride?

VALUE OF FRATERNAL DELEGATES FOR THE CALIFORNIA STATE MEDICAL, DENTAL, AND PHARMACEUTICAL ASSOCIATIONS

Medicine, Dentistry, and Pharmacy Have Closely Allied Interests.—Editorial comment was made in last month's CALIFORNIA AND WESTERN MEDICINE on the important places which members of the three professions associated in healing-art work—medicine, dentistry and pharmacy—hold among the citizenry of our State, and the good that could be derived from closer contacts if consistent representation by fraternal delegates at annual sessions of the state organizations of the three professions were maintained; with the additional suggestion that, in the years when the Legislature convened, the legislative committees of the three professions might arrange to hold one or more joint meetings, for consideration of problems of mutual interest.

The thoughts, to which expression was thus given, has brought to CALIFORNIA AND WESTERN MEDICINE a letter from Professor Chauncey D. Leake of the Department of Pharmacology of the University of California—printed in the Letters Department, on page 212—in which he voices his support of the procedures advocated.

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Coöperative Affiliations Should Be Instituted.—Much has been written concerning the need of coöperative effort and the utilization of all legitimate means that can aid in bringing about a stronger front against those who, for reasons best known to themselves, would break down public health and medical service advancement in order to try out illy conceived and probably impracticable experiments with the system of healing art practice, under which, in the United States, such

* In this month's issue, see advertising page 30.

† See CALIFORNIA AND WESTERN MEDICINE August, 1937, pages 117 and 118.

notable advances have been made in the promotion of the work of scientific medicine and of the public health.

We are happy to print the letter of Professor Leake, coming as it does from a nonmedical man, because we believe he gives expression to thoughts acceptable not only to members of the pharmaceutical profession, but, in equal measure, to that large group of dental practitioners who make up the membership of the dental societies. Medicine, Dentistry, and Pharmacy handicap themselves when they fail to coördinate their forces in work of mutual interest. Why, then, not get together?

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 199.

EDITORIAL COMMENT†

GONORRHEA AND PARA-AMINOBENZENE-SULFONAMID

Despite the hoary antiquity of gonorrhea, which likely antedates the era of Moses and Aaron, and notwithstanding the almost universal prevalence of gonorrhea since their time among all the civilized nations of the world, perhaps no disease has so consistently, persistently, and perennially challenged the physician's skill as to cure. Certainly, no disease has ever been more overtreated, undertreated, grotesquely treated, maltreated, or just not treated at all. Perhaps the real reason behind all this might be compressed into Dr. Samuel Johnson's celebrated words, "Ignorance, Madam, pure ignorance," which he used, however, in quite a different connection. For it must be admitted that, notwithstanding brilliant and recent developments along the broad front of medical science, our knowledge anent many phases of this formidable disease, Gonorrhea, has remained for the most part in absolute *status quo*.

Certain of our achievements with regard to gonorrhea have indeed been noteworthy. With identification of the invader and its culture, its *modus operandi* generally, the urethral architecture, both gross and microscopic, the symptoms, the general pathology, the complications and sequelae, we have made meritorious progress. However, for more apt therapy and scientific treatment it seemed essential to contrive, among other things, (1) a better understanding of the gonococcus *per se,* with its recessive or atypical forms and its potent bacteriological allies; (2) enlightenment as to the endotoxin and, particularly, with regard to its chemical nature; (3) more specific information anent the biochemical tissue response to this irritant and more intimate detail as to the body's protective mechanism; and (4) last, but not least, a definite insight into that autogenetic process, so apparent clinically but as yet so nebulous scientifically, by virtue of which the offender is dealt a lethal blow and the disease cured.

There can be little doubt that the cure of gonorrhea (unless aborted) in the past has been predicated almost entirely upon the development of this autogenetic and benevolent reaction. Our therapy has merely comprised measures to hasten, stimulate, foster, aid and abet this mysterious and enigmatical, but nevertheless omnipotently curative response of the body's defense mechanism to the invader. For, surely, no other disease has better illustrated Ambroise Paré's famous dictum: "God heals, and the physician hath the thanks."

Since, therefore, the clinician was forced to attempt the cure of gonorrhea virtually by a process of circumlocution, with an effort on his part to sponsor an autogenetic reaction about which he knew little or nothing and which, in any event, was slow and chronologically uncertain as to appearance, it is small wonder that treatment of this morbid entity in the past has been most unsatisfactory. Nor is it any wonder, under these circumstances, that the clinician has beseeched the chemist for help; nor that the chemist has left no stone unturned and no possibility unexplored in his ceaseless quest of succor.

Mindful, perhaps, of Ehrlich's outstanding accomplishments in the realm of chemotherapy, and always stimulated by the mandatory urge, the research chemist has recently accelerated his activities in this prolific field, *i. e.,* chemotherapy. He experiments with the diazo group and their reduction and substitutional possibilities; produces various azo dyes and strives for a sulphanilic acid (para-aminobenzenesulphonic acid) coupling by virtue of diazotization plus an aniline supplement—all in quest of an agent to directly "fix," by selective affinity, and thereby destroy the invading bacterial organism without injury to the other body cells. The finished product of the chemist's skillful prestidigitation must behave physiologically consonant to Ehrlich's side-chain postulates. Your modern Trevisan eschews "sissy" methods or passive ideology with regard to his attack upon bacterial sorties, such as elevation of the opsonic and phagocytic index, induced leukocytosis, increase of the antibodies, agglutinins and lysins, stimulation of the reticulo-endothelial mechanism, production of a bacteriostatic serum, etc. Nothing short of a direct "key-lock" combination quells the ardor of his endeavors.

A most recent contribution to this promising field of chemotherapy from "the industry that never grows old" is para-aminobenzenesulfonamid, para-aminophenylsulphonamid or sulfanilamid. Apparently the chemotherapeutic value of this drug lies essentially in the para-aminobenzenesulfonamid itself. It was introduced originally to combat the streptococcus hemolyticus, but it was shortly found to be equally as effective against the meningo-

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

coccus. Moreover, it was discovered by investigators that this drug was eliminated almost entirely in the urine, and both in the unchanged as well as in the conjugate form. The conjugate form comprised para-acetylaminobenzenesulfonamid principally, if not entirely.

Because of this heavy elimination in the urine, plus its alleged high chemotherapeutic index for the "coccus" group of organisms, the author began the use of sulfanilamid experimentally some time ago in the treatment of a series of gonorrheal cases, both of acute and chronic nature. All smears (taken from the urethra and centrifugated urine) were proved by the Gram method. To date (May 24, 1937) he has now employed this drug in thirty-eight cases, all seen in private practice and all among male patients. The author realizes that it is a new chemotherapeutic agent whose action is not as yet thoroughly understood. He realizes, also, that thirty-eight cases are far too few from which to draw conclusions. He is aware, also, that all evidence is drawn from clinical observation, and is unsupported by blood and urine analytical checks. While it seems inadmissible under the caption of "Editorial Comment" to present case histories with correlative and substantiative evidence in detail, nevertheless so striking have been the initial results among these thirty-eight preliminary cases treated with sulfanilamid that the author ventures to tabulate certain impressions which must be confirmed or disproved by trial and error in the balance of subsequent clinical and experimental application.

Impressions: (More definite conclusions must await the lapse of time.)

1. We seem about to challenge Philippe Ricord's most famous bon mot and truism—made one hundred years ago—"We know when clap begins, but God alone knows when it ends."

2. For the first time in history the profession has available an effective, formidable and *direct* method of attack for the gonococcus.

3. It is no longer necessary to stand impotently by while "Nature takes her course" to await that aforesaid beatific, curative, but wholly mysterious and autogenetic reaction.

4. Should sulfanilamid fail to "click" at the outset (it was effective in one to three days in 60 per cent of our acute cases), it seems to influence very favorably the clinical course of this malady, both as to the inflammatory reaction and its duration. Moreover, in most instances it appears to prevent altogether posterior extension and complications.

5. The efficacy of sulfanilamid in a given instance poses an individual problem which seems more dependent upon the drug's physiological elaboration or the end point of elimination than upon the chronicity of the gonorrheal process *per se*.

6. Doubtless it will be discovered by later studies, among those patients with no initial "click" or only feeble response, that the metabolistic end point is preponderantly on the conjugate side.

7. The drug does not appear dangerous in moderate doses. Unfavorable reactions in this series comprised, to wit, sixteen instances of slight nausea and indigestion, twelve complaints of dizziness, and one instance of a maculopapular dermatitis. All rapidly disappeared when the drug was withdrawn or the dosage otherwise modified.

8. Much more time, clinical experience and experimental data are necessary exactly to evaluate sulfanilamid in the treatment of gonorrhea.

Medico-Dental Building.

Edward W. Beach,
Sacramento.

CONSERVATISM IN SINUS SURGERY

Fourteen years ago Ross Hall Skillern[1] cautioned us that radical operations on the sinuses do not always spell radical cures, and since then the pendulum in sinus surgery has gradually assumed a midway position. More intelligent planning in the treatment of sinus pathology is being evidenced on all sides. Thus, finally, surgical judgment is beginning to triumph over surgical technique in this particular field. The day is past when we can look upon those deep, irregular and disfiguring depressions in the forehead, following a Killian, as a common occurrence. And we see less and less of those completely exenterated noses, sans turbinates, sans ethmoids, sans smell (paraphrasing Shakespeare) but not, alas, sans odor.

We have learned that a so-called surgically clean nose does not produce a physiologically functioning nose; that the removal of diseased tissue *per se* is not the ultimate goal to be obtained. The prime requisite should be to leave the nose in as normal a condition as possible after the operation in order to avoid unpleasant sequelae which may preclude a completely successful result. And this can best be done by means of the gradual approach.

Given a patient with a proved sinus involvement, the treatment indicated would vary with the particular sinus involved. Suppose that we are dealing with an antral infection: does that automatically mean a radical antrum operation? Not until other and more conservative measures have first been ruled out should an external operation be considered. If the antral washings (by sharp puncture under the inferior turbinate or dull via the natural ostia) consistently produce thick pus or granular pus which mixes with the water, then a window resection should be attempted. For by this procedure, even if a radical should eventually be found necessary, we are now doing part of the later and more extensive operation, and there is, therefore, no duplication of effort. Through the roomy window in the lateral nasal wall sufficient aeration and drainage are achieved, and many an antrum which roentgenologically shows marked cloudiness or thickening of the mucous membrane will clear up without resorting to an external procedure. Of course, in the presence of bone involvement or polyps within the antrum, there is no choice but that of the radical.

1 Skillern, Ross Hall: The End-Results of Radical Operations on the Accessory Sinuses, Ann. Otol., Rhin., and Laryng. (March), 1923.

Likewise, in the presence of an ethmoid involvement, should we promptly do an external ethmoid exenteration? It is remarkable how many headaches and postnasal discharges clear up merely by uncapping the ethmoid capsule (amputation of anterior third of the middle turbinate), followed by appropriately medicated tampons intranasally placed, and infra-red heat externally. Zinc ionization[2] in selected cases has proved of inestimable value. These methods have served to localize the infection in the cells of the ethmoid labyrinth to the area actually involved, and also to promote drainage to a dependent level rather than spread the infection up toward healthy cells by an indiscriminate curetting of all the cells in sight. Not a few patients in the past have started out with an involvement of the anterior ethmoids and, through no fault of their own, have ended up with a posterior ethmoiditis. Small wonder, then, that the laity shudders, when a sinus operation is suggested, with the remark, "Once a sinus operation, always a sinus operation."

In the presence of such positive indications as retrobulbar neuritis, fistulae, orbital involvement or other grave complications, where the ethmoid is known to be at fault, there is, of course, no question but that an external ethmoid should be done and that at once. It is only in those ethmoid sinus involvements producing such symptoms as headache, a postnasal discharge and the like, that I present my thesis that the more conservative measures be tried initially and, if proved inefficient, then the more radical procedures may be carried out.

The same principles would govern the management of a frontal sinusitis. Amputation of the anterior third of the middle turbinate uncovers the nasofrontal duct and drainage, in this instance being naturally dependent, produces results in a relatively short period of time. Occasionally, however, the external operation must be resorted to, but modifications in technique prevent any noticeable external deformity.

The sphenoid sinus lends itself very easily to irrigations or an enlargement of its natural ostium, and usually that is all that is required. Curettage within the sinus is dangerous due to occasional dehiscences in its walls, and because of its proximity to important nerves and vessels.

The modern rhinologist has learned to consider sinus pathology as a local manifestation of a general condition and bases his treatment on this assumption. Hurd[3] agrees that much of the discredit on the results of sinus operations in the past has been due to lack of understanding of the underlying causes. Allergic patients will never be cured, and very little relieved by the most extensive operation, if the sensitizing agent is not found and removed. Shurly[4] articulates our thoughts by stating that many of our surgical problems are developed as a result of lymphoid or bony overgrowth and resultant obstruction. Why are the nasal passages, with their importance in the preservation of health, so frequently deformed and hypertrophied? If we may enter the field of preventive otolaryngology with the same scientific zeal attained in preventive medicine in general, we are aware that the future realm of scientific value to humanity is not in surgery, medicine, or otolaryngology, but in research study directed along the lines of biochemistry, that will solve the problems of infection, immunization, the rôle of the endocrines, and the chemistry of foods. The untold prophylactic value of scientific feeding, the maintenance of an endocrine balance, the study of vitamin supply, and the influence of light and outdoor life are subjects worthy of consideration in the problems of the restoration of a better osseous development.

516 Sutter Street.

SIDNEY H. GIDOLL,
San Francisco.

2 Gidoll, Sidney H.: Zinc Ionization in the Treatment of Nasal Sinusitis, Calif. and West. Med., 40:187, 1934.

3 Hurd, Lee M.: Chronic Infections of the Nasal Accessory Sinuses, Ann. Otol., Rhin., and Laryng., 39:966 (Dec.), 1930.

4 Shurly, Burt R.: Deficiency Diet in Relation to the Skeleton, Especially in Connection with the Bone Infections of the Head, Ann. Otol., Rhin., and Laryng., 38:612 (Sept.), 1929.

EARLY DIAGNOSIS OF CANCER

Just of what value is the early diagnosis of cancer? To the surgeon an early diagnosis means the recognition of cancer while yet localized so that, if completely removed in a manner that would not spread it at the time either locally, through lymphatic channels or the blood stream, it would be cured. This surgical evaluation is very old now, and all these years the public has been taught to seek advice with the first gleam of suspicion.

The use lately of means of treatment other than surgery has changed the meaning of an early diagnosis in the foregoing sense. Irradiation has replaced surgery altogether in some forms of cancer and, in these conditions, an early diagnosis is not so essential as it is if surgery is to be used. Cure by surgery is effected only with complete removal, which is impossible after metastases occur. Nevertheless, with the exception of a few radiocurable cancers, the mortality of cancer remains about as high as ever. The success with irradiation in these few radiocurable forms has lowered the efficiency in the treatment of the many radioresistant forms of cancer. An early diagnosis is made no more frequently today than formerly and, when made, is not acted on so promptly as before the days of irradiation. These two factors alone explain many failures in the treatment of cancer. Until the cause of and a specific cure for cancer are found, the profession should hold fast to the slogan, Early diagnosis and prompt surgery will cure cancer.

384 Post Street.

FRANK HINMAN,
San Francisco.

The inventors of the alphabet could not have foreseen the odd uses to which their signs and symbols would some day be put: How a man might read to take his mind off a mortgage, to make a journey seem shorter, to kill ennui, to rest the mind after an emotional storm, or to lull himself to sleep at night. If you would develop powers, read not often merely to pass the time, for listless reading breeds a poor memory.

ORIGINAL ARTICLES

"VALLEY FEVER" OF THE SAN JOAQUIN VALLEY AND FUNGUS COCCIDIOIDES*

By Ernest C. Dickson, M.D.
San Francisco

Discussion *by K. F. Meyer, M.D., Ph.D., San Francisco; Hiram E. Miller, M.D., San Francisco; Roland B. Tupper, M.D., Fresno.*

A FEBRILE disease which has been recognized in the San Joaquin Valley for many years has occurred so frequently that it is known locally as "valley fever." It is characterized by a cold or bronchopneumonia, often with a relatively high fever—up to 103 or 104 degrees Fahrenheit—the appearance of very painful erythema nodosum, with lesions particularly over the shins, although they may appear elsewhere, and usually rather prompt recovery. The etiology has been unknown, and has been the basis of much conjecture among the physicians of the Valley. Nearly twenty years ago an epidemiologist of the State Board of Health made a visit to Bakersfield at the request of several local physicians, but failed to identify the cause of the malady. It is curious that, although cases of the disease appear to have been very numerous, they do not seem to have been described in the literature, probably because valley fever rarely, if ever, has been considered to be a cause of death.

The following cases have been seen by me in consultation at the Stanford Medical School and, I believe, offer complete proof that the disease is a primary acute manifestation of infection with the coccidioides fungus. It is interesting that, among fourteen consecutive patients with advanced coccidioidal granuloma who were admitted to Kern County Hospital in 1935, three gave histories of having had valley fever.

REPORT OF CASES

Case 1.—H. D. C., age 26. Medical student. Seen with Dr. P. H. Pierson.

The family history and record of previous illnesses were unimportant, in so far as the current illness was concerned.

On the morning of August 28, 1929, he commenced work on a research problem on the life cycle of fungus coccidioides, and inadvertently opened a petri dish culture of the fungus which was several months old and dried out. When the cover of the petri dish was lifted, he noticed a light-brownish cloud arising from the dish. Undoubtedly, this was a cloud of chlamydospores which were well developed in the fungus at that time. In so far as is known, this was his only direct exposure.

On September 6, nine days later, he noticed pains in the chest, resembling pleurisy pains, which increased in severity during the day. In the evening he was examined by a physician, who found no signs of disease in the chest but who strapped the chest to restrict movement. The temperature was 99 degrees Fahrenheit. For the next nine days he was far from well; he said he was tired by 10 a. m. His cough was more severe and was painful, and on several occasions he was forced to leave his work and go home to bed. In the mornings there was much purulent sputum, which sometimes was streaked with blood. He had nearly constant headache, backache, and aching in the legs. He had the feeling that he had fever, but did not take his temperature. On September 19 he found that he had lost fifteen pounds in weight in two weeks.

On September 19, an x-ray of the chest was taken and Doctor Chamberlain summarized his report as follows:

"From the x-ray standpoint there seems to be a massive involvement of the right upper lobe with tuberculosis; lobar pneumonia is, of course, a possibility from the x-ray standpoint, but my impression is that the patient's clinical picture rules out pneumonia and makes tuberculosis the much more likely as an explanation."

The patient was put to bed, and his temperature was found to range between 99 and 101 degrees Fahrenheit.

On September 25, a painful red nodule developed on one of the shins, and the next day there were several similar nodules over both shins. These were red, hot, and tender, and measured about 1.5 centimeter in diameter. They began to subside by September 30, and by October 3 were practically gone.

On October 17, 1929, Doctor Chamberlain reported: "The abnormal densities in the left lung have entirely disappeared. The abnormal densities in the right upper lobe are considerably more than half-gone in the present examination. There remains just a trace of the former mottling and consolidation in the caudal portion of the right upper lobe."

On November 14, a second eruption of erythema nodosum appeared, which reached its maximum in about three days and then disappeared.

On November 25, Doctor Pierson made a note: "Progressively better. No cough or other pulmonary symptoms."

The patient spent about five months in Arizona and then returned to work. He has had no indication of further trouble and repeated x-ray examinations of the chest have been reported normal.

Laboratory Tests

On September 29, 1929, there were 10,800 leukocytes, of which 57 per cent were polymorphonuclear and 7 per cent were eosinophils. The eosinophils dropped to 2 per cent of 5,650 polymorphonuclear forms until November 21, when they were again 5 per cent of 5,500 polymorphonuclear cells. This was at the time of the second eruption of erythema nodosum.

The first sputum for examination was received on September 24, 1929, and the last on September 27. The production of sputum ceased at that time and no further samples could be obtained.

Sputum report: First specimen of sputum was received September 24, 1929.

Smears show moderate numbers of pus cells and a few lymphocytes. There are many Gram-positive cocci occurring in pairs and chains. No acid-fast bacilli were seen in direct and antiforminized specimens.

Cultures show growth in forty-eight hours of white fungus.

The third specimen was received September 26, 1929: Smear showed no acid-fast bacilli. Direct cover-slip preparations showed moderate numbers of spherules with double-contoured capsules, the majority nonsporulating, but a few showing endospores, and a few collapsed capsules. Guinea pig 78 was injected. The animal was killed November 1, and showed moderate enlargement of inguinal and axillary glands which, on histologic examination, showed typical lesions and spherules of coccidioides infection.

Subcultures of the culture of fungus were injected into guinea pigs on November 6. All developed typical lesions of coccidioides with many sporulating and nonsporulating spherules.

* * *

Case 2.—G. S., age 26. Field geologist for an oil company. Patient of Dr. P. H. Pierson.

The family history and previous illnesses are unimportant.

He had been well and strong before the current illness. In December, 1929, he was working near Bakersfield in Kern County. On the 28th he did not feel well, and two days later had nausea, vomiting, and diarrhea for one day.

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* From the Department of Public Health and Preventive Medicine, Stanford University School of Medicine.

Read before the Pathology and Bacteriology Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.

On January 1, he had stabbing pains in the upper left chest on breathing, but this soon subsided. Temperature was 101.5 degrees Fahrenheit. He felt bad, was constipated, and was able to work only part time. On January 9 and 10, he had aching and pains in the ankles and wrists, and began to cough and raise sputum. He was admitted to Mount Zion Hospital in San Francisco on January 14, 1930. with the complaint of pain, fever, malaise, cough, and expectoration. He was highly irritable at the time.

The detailed hospital history is not available, but the temperature chart indicates that the acute illness had almost subsided. The temperature was 103.2 degrees Fahrenheit on the day of admission, but reached normal on the fourth day. It did not go up again thereafter.

On January 14, an x-ray examination of the chest was made by Dr. Lloyd Bryan, who reported as follows: "Chest, anteroposterior and lateral. Rather marked hilar gland enlargement with slight, coarse mottling throughout the upper half of the left lung. Conclusion: Tuberculosis."

On January 28, Doctor Bryan reported: "Chest: (The chest) markings are slightly less prominent than on the previous examination," and on March 24, 1930, his report read, "The lung fields are clear."

The first specimen of sputum for bacteriologic examination was received by me on January 27, 1930.

In part, my report was as follows (T-1813): "No acid-fast bacilli or spherules of oidia were seen. On Sabouraud medium there is a fungus growth which strongly resembles oidium coccidioides."

On January 29, the report was made (T-1904): "No acid-fast bacilli or oidia were seen, in spite of prolonged search. Culture on Sabouraud medium shows growth of fungus type which resembles oidium coccidioides."

On February 1, the cultures of Specimens 1 and 2 were injected into guinea pigs. On February 21, T-1813 A: "Guinea pig 152, which was injected with culture of sputum, shows generalized infection of coccidioidal granuloma." On March 10, T-1840 A, was reported: "Guinea pigs 149 and 150, which were injected with cultures from the third specimen of sputum, were killed and both found positive for coccidioidal granuloma." It is to be noted that the first sputum was received on January 27, ten days after the patient's temperature had become normal and no spherules were to be seen, although cultures were still positive. Neither spherules nor growth of fungus was found in December, 1930.

On January 7 and January 13, it was noted that there were 4 and 6 per cent eosinophils, respectively, just before and after the patient complained of pain in the ankles and wrists. There is no note that there was erythema nodosum at this time.

The patient made an uninterrupted recovery from the acute illness, although severe nervous manifestations developed for which no organic cause attributable to coccidioides infection could be determined. He was still under Doctor Pierson's care in March, 1936, at which time it was noted that nothing abnormal was found in the chest on physical examination and by fluoroscopy.

* * *

Case 3.—A. H. Engineering student. Seen with Drs. Bloomfield and Lee.

In the Christmas vacation, 1935, the patient worked in the oil fields near Coalinga, Fresno County. About two weeks later he developed a severe cold, with accompanying symptoms which he thought to be the "flu." He had fever up to 102 to 103 degrees Fahrenheit. He then had an eruption of tender, red spots on the legs, mostly below the knees, which cleared up in a few days. Some time later a pimple developed in the skin of the neck, which the patient squeezed. It then developed to resemble a boil, and cultures of the pus showed growth of fungus coccidioides. The lesion dried up once and then a series of small pustular lesions developed around it. The area was excised, but the process recurred in the scar. The skin lesions finally disappeared after treatment with 25 per cent thymol in olive oil, applied locally and per os in one-half-gram capsules three times daily.

A lump developed in the neck, which proved to be an enlarged cervical lymph gland. At first this was tender, but did not fluctuate. It has decreased in size, but is still palpable, although the patient feels well and has had no active recurrence. No detailed clinical record could be obtained.

* * *

Case 4.—A woman, age 53. Seen in the Medical Clinic, Lane Hospital.

The patient, a practical nurse of San Francisco, visited her daughter in Porterville, Tulare County, in December, 1935. She had been in general good health until December 26, when she contracted a "severe cold in the chest." This cold came on without any preliminary rhinitis or coryza. She remained in bed two days and then returned to San Francisco, where she was confined to her bed most of the time for the next three weeks. On January 18, she was constipated and drank a canful of sauerkraut juice, after which she vomited twice and had a large, dark-colored, liquid stool. The next morning she noticed several red, tender spots over her knees, shins, and buttocks, and a few small red spots on the chest. These were exquisitely tender; she described them as "sore as a boil." The small spots on the chest soon disappeared, but the larger ones on the legs remained practically unchanged until January 23, when she entered Lane Hospital. Her complaint on admission was: "Cough, which has lasted one month, a tired feeling, and red spots on the legs for five days."

The family history and previous illnesses were unimportant in so far as the immediate illness was concerned. The story of the present illness is as outlined above. The essential findings on physical examination were the lesions on the lower extremities, which were described by Doctor Bloomfield as follows: "Over the legs up to just above the knees there is an exquisite crop of erythema nodosum. Individual patches vary in size up to 10 centimeters in diameter, are purplish and very hot, with a clear spot around them. There are a few small lesions on the thighs, but none elsewhere. The lungs are not remarkable." There were also some signs of cardiac involvement which suggested a congenital lesion.

X-ray examination of the chest was made on January 24. Doctor Newell reported: "Hilar and bronchial markings are much increased. The lower lobes might be accounted for by chronic passive congestion, but there is more density of a somewhat fibrous nature in the right upper lobe than there is in the left. This difference on the two sides is enough to make me suspect that some of the right upper lobe density is due to tuberculosis."

On January 31, x-ray examination of the chest was repeated. Doctor Leef reported that "The amount of density throughout the lungs is not so great as it was at the previous examination. This is particularly true of the density at the right base. It is the congestion that has disappeared. I am not so suspicious of any present tuberculosis now."

On January 31, a specimen of sputum was examined. No acid-fast bacilli or fungi were seen in smear, and routine culture on Sabouraud's medium showed no growth of fungi.

On January 23, there were 11,080 leukocytes with 70 per cent polymorphonuclears and 3 per cent eosinophils. On the 29th there were 12,100 leukocytes, with 43 per cent polymorphonuclear and 6 per cent eosinophils. The sedimentation was 32 millimeters in 60 minutes.

The Wassermann test was negative, and tuberculin O. T., 1:2000, showed erythema in forty-eight hours.

Other laboratory tests, including blood culture, showed nothing remarkable.

The temperature was about 103 degrees Fahrenheit when the patient was admitted to hospital, and the fever was irregular, reaching as high as 104 degrees Fahrenheit (rectal) for several days. On the eighth day it became normal and remained so.

On February 6, the patient was dismissed. The red spots had faded, but the induration of the lesions was still palpable. The temperature was normal. Diagnosis: Erythema nodosum.

On May 9, after considerable urging, the patient returned to the clinic and was given 0.1 cubic centimeter of coccidioidin* intracutaneously. On May 11, there was a pro-

* The coccidioidin used on the patients here described was obtained from Dr. K. F. Meyer.

nounced positive reaction, with a central, indurated, dark red, slightly vesicular area 10 by 15 millimeters in diameter, surrounded by a hyperemic zone of about 6 by 9 centimeters. There was no constitutional disturbance.

The patient said she was well and was working. There was no sputum for further culture. On January 16, 1937, she reported by telephone that she has been working regularly and was "feeling fine."

* * *

Case 5.—W. S., male, age three and one-half years, of Ducor, Tulare County. Seen with Dr. H. K. Faber.

The patient was brought to Stanford Hospital on April 13, 1937. His mother stated that he had had a fever for two weeks, and painful red nodules on the shins for two days.

The child had been in good health, had had none of the diseases of childhood, and no glandular swelling. In December, 1936, had had nausea and vomiting for one day. On March 27 last, the child became irritable and complained of sore throat, which was not severe enough to prevent swallowing. His temperature was found to be about 100 degrees Fahrenheit, and he was thought to have a cold. The fever has continued until the time of admission, reaching from 100 to 104 degrees Fahrenheit in the afternoon, with normal morning temperature. For a few days there was rumbling in the bowels and the child had cramps without any association to meals, and was constipated. There was no vomiting. Following the administration of milk of magnesia, there were soft to watery stools about every second day.

For the past week the child has been free from gastrointestinal symptoms, but beginning nine days before admission the temperature reached 103 or 104 degrees, and a "heat rash" appeared for one day on the trunk and neck. He remained quite active until four days before admission, but since has been apathetic and has slept poorly, with night cries.

Two days before admission, painful, bright-red nodules appeared on the shins, lower thighs, and buttocks, which reached their maximum intensity within forty-eight hours and then began to fade. A diagnosis of "valley fever" was made by a physician at Porterville.

On physical examination, nothing unusual was detected except the lesions on the lower extremities and buttocks. Over the shins were many discrete and confluent nodules which were warm, red and purplish-red, indurated and tender, but not painful. They measured up to 3 centimeters in diameter. Similar but smaller nodules, not more than 1½ centimeter in diameter, were seen on the anterior surface of the thighs, above the knees, on the buttocks, on the extensor surface of the right forearm, and just above the left elbow. There was no glandular enlargement and the spleen was not palpable.

The tuberculin test was negative.

Coccidioidin test, 0.1 cubic centimeter, was strongly positive and so severe that necrosis was feared. The central, indurated, red and slightly vesicular papule was 1½ by 2 centimeters, surrounded by a hyperemic zone.

The blood count showed 8,200 leukocytes, of which polymorphonuclear were 53 per cent and eosinophils 3 per cent. The sedimentation test was rapid—31 millimeters in 60 minutes.

Because there was no expectorated sputum, the stomach contents were removed. The washings contained a considerable amount of mucopurulent sputum in which were moderate numbers of the typical spherules of coccidioides. No acid-fast bacilli were seen. Cultures on Sabouraud medium showed pure growth of Fungus coccidioides, which was proved virulent by guinea-pig inoculation.

An x-ray examination of the chest was made by Doctor Leef on April 14, 1937. The report is as follows: "The lung roots are very heavy, particularly on the left side. There is also some parenchymal infiltration on the left side at the level of the seventh and eighth ribs posteriorly. The pleura between the upper and lower lobes is quite thick. Conclusion: The appearance is compatible with tuberculosis."

On April 27, a second examination was made and reported: "There is still quite a bit of density in the upper posterior part of the left lower lobe. The left lung root also remains about as heavy as it did before. I do not see any new areas of involvement."*

COMMENT

Four of our five patients were exposed to infection in the San Joaquin Valley; the fifth in our laboratory when he was working with Fungus coccidioides. In all the onset of illness was characterized by pulmonary involvement with fever, cough and sputum. In Case 1, where the time of exposure to the infecting organism is accurately known, symptoms of pulmonary involvement began just nine days later. In four cases in which we have record of roentgenological examination of the chest, the x-ray diagnosis on first examination was tuberculosis. It was only after the shadows in the films cleared so rapidly that the radiologists questioned their diagnoses. All but one of our patients had erythema nodosum. In three patients the nodules appeared from thirteen to twenty-five days after the onset of illness, and were accompanied by from 3 to 7 per cent eosinophilia in the blood. One patient had two attacks with an interval of six weeks. In two cases the sedimentation rate was taken at the height of the disease and showed, respectively, 31 and 32 millimeters in one hour.

As is the rule with valley fever, none of our patients has succumbed. Two of them are apparently free from active coccidioides infection after an interval of seven years. One of the two who had the acute illness fifteen months ago is apparently well; the other developed secondary lesions in the skin of the neck, which healed under treatment, and in the cervical lymph glands. The fifth patient is recovering and is now ready for the Convalescent Home.

These cases prove conclusively that Fungus coccidioides is sometimes the cause of a symptom complex of acute illness which, in so far as I can learn, has hitherto not been reported. I believe that it is identical with what has been known locally in the San Joaquin Valley as "valley fever."

DIAGNOSIS

Diagnosis of the condition is not difficult if one but remembers that it may occur. In all of our cases there was cough with sputum during the febrile period. In the case of W. S., who was too small to bring up the sputum, samples were obtained by gastric lavage, which delivered mucopurulent sputum mixed with the stomach contents. When this method is used, the washings from the stomach should be promptly neutralized with soda, as the spherules are soon digested in the acid gastric juice. Typical sporulating and nonsporulating spherules are easily seen in sputum if one examines the sputum in fresh cover-slip preparations under the microscope.

The fungus grows readily on the routine culture media, but we have had best results with Sabouraud's glucose-agar, which is prepared for the cultivation of fungi. One must remember, how-

* In describing the films from a third examination made June 23, 1937, Doctor Newell reported: "Density in the left lower lobe has cleared out very remarkably, leaving only the very faintest perceptible granularity in that region."

ever, that although the colonies may appear on the second day of incubation, they may not be recognizable until the third or fourth day, so that the plates should be incubated at least a week before they are declared negative. Conclusive identification of the fungus can be made only by animal inoculation. Our routine diagnostic method for the fungus culture is to permit it to grow for about eight to ten days, until the chlamydospores are well developed, and then inject it in saline suspension into a guinea-pig testicle. Enlargement or induration of the testicle may be observed within twenty-four to thirty-six hours, and pus containing the typical spherules may be obtained in from ninety-six to one hundred and twenty hours. If female guinea pigs are injected intraperitoneally, it may be four to six weeks before the animal is ready to be sacrificed for diagnosis, but if a male guinea pig is used, the testicles may enlarge and contain pus within two or three weeks.

The intracutaneous skin test was the method of diagnosis of coccidioides infection in one of our cases where sputum was no longer available for intensive study. It was also strongly positive in our most recent case. In my opinion, a positive reaction indicates sensitization to the Fungus coccidioides, which may or may not be active at the time, but I am not sure whether specificity would persist if the body which had been previously infected with the fungus had become entirely free of the organism. On one occasion I had an opportunity of skin-testing a patient who had had valley fever at Coalinga ten years earlier. She had made prompt recovery and had suffered no indications of infection in the interval, but the skin test was still strongly positive. Stereoscopic x-ray showed that the lungs and visible adjoining lymph glands were entirely normal. I have not seen any patient in which the coccidioidin test was negative who had demonstrable signs of coccidioides infection, or who gave a history of having been infected. I, therefore, consider the test to be specific and of diagnostic value.

COMMENT

This acute disease appears to be the immediate result of initial infection with Fungus coccidioides, the organism which long has been associated with coccidioidal granuloma. I have suspected for some time that coccidioidal granuloma is a secondary manifestation, which results when organisms which have lain dormant within the body for variable lengths of time eventually gain access to the blood stream and are disseminated to outlying local areas or throughout the body, thereby causing local lesions such as coccidioidal lesions in the skin, joints, or elsewhere, on the one hand, or generalized coccidioidal infection on the other. It was reported by Ophüls, years ago, that at autopsy of generalized coccidioidal granuloma one frequently finds a lymph gland or glands at the root of the lungs which is decidedly of an older type of tissue reaction than the lesions elsewhere, and I have seen a case of coccidioidal meningitis where the only coccidioidal lesion, other than those in the meninges, was an old, fibrous lesion in a peribronchial lymph gland. It has been suspected that initial infection is primarily through the respiratory tract in the majority of cases, but, hitherto, no clinical evidence of primary infection of the lungs has been collected. (See also Addendum.)

WHAT NAME?

To obtain a name for this symptom complex which identifies it with the etiologic agent, and at the same time differentiates it from coccidioidal granuloma, presents some difficulty. Obviously, it cannot be called coccidioidal granuloma, because it is not a granuloma. It cannot be differentiated in terms of fever, of pneumonia, or of being acute, because there may be fever and pneumonia in coccidioidal granuloma, and cases of coccidioidal granuloma have been classed as acute, subacute, or chronic, depending chiefly upon the duration of the illness. The term "coccidioides infection primary" is not completely satisfactory because, while we believe that the majority of cases become infected through the respiratory tract, we know that some cases are infected through the broken skin.

The word "coccidioidomycosis" might be used to include all cases of infection with the Fungus coccidioides, regardless of the clinical manifestations, and modified in some way to define each type of the disease. Thus, such cases as are here described could be classified as coccidioidomycosis primary inspiratory; cases which are infected through the skin as coccidioidomycosis primary cutaneous; and cases of coccidioidal granuloma as coccidioidomycosis secondary or late. Such a nomenclature is cumbersome, it is true, but it does include all cases in which the illness is caused by infection with the Fungus coccidioides, and it permits of differentiation between the type of case which is here described and coccidioidal granuloma.

* * *

ADDENDUM

Since this paper was presented, my attention has been called to an item, under the heading "San Joaquin Fever," by the County Health Officer of Kern County, Dr. Joe Smith of Bakersfield, in the annual report of the Kern County Health Department for the fiscal year 1935-1936, page 22:

> Incomplete reports showed more than a score of cases of a hitherto unpublished disease popularly called "San Joaquin" or "Desert Fever," which is characterized by early symptoms of bronchopneumonia followed in a week or ten days by raised, reddened, tender "bumps" or nodules on the legs, arms, and sometimes on the chest, neck and face; this rash is sometimes diagnosed as "erythema nodosum." An x-ray of the lungs in these cases usually reveals parenchymal and hilar lymph node involvement and sometimes pleurisy or pleurisy with effusion or interlobar empyema. An x-ray diagnosis of the chest findings in these cases is frequently "tuberculosis." However, there is usually complete recovery, as shown by the x-ray a few months later.
>
> The coccidioidin test in all cases of "San Joaquin fever" so far tested with the Kessel coccidioidin preparation have been so strongly positive that it has been found necessary to use it in one-tenth dilution with normal saline to avoid temperatures and severe local reactions. To date, the typical double-walled capsules characteristic of coccidioides have been recovered by direct examination of sputum smears, cultures, and by animal inoculations from six cases diagnosed as San Joaquin fever or erythema nodosum.

This item is of particular interest in that it shows that cases similar to those reported are not

infrequent in the San Joaquin Valley. In January, 1936, I discussed the problem with Doctor Smith and asked for the coöperation of the Kern County Health Department. It is a pleasure, therefore, to acknowledge this preliminary notice of the work which is being done in Kern County.

Stanford University School of Medicine.

DISCUSSION

K. F. Meyer, M.D., Ph.D. (Hooper Foundation, San Francisco).—The discovery by Dr. E. C. Dickson that the fungus coccidioides is responsible for a nonfatal, relatively common disease known as "valley fever," is of far-reaching, general epidemiologic significance, and deserves the widest possible recognition. That the fatal coccidioides granuloma might be masquerading as erythema nodosium, or as a benign pulmonary involvement, was certainly not suspected by the early investigators of this interesting malady. In fact, the medically oriented observers could not appreciate until recently the biologically well-known fact that the clinically manifest parasitism is invariably accompanied by silent subclinical and latent infections. For the microbian and virus diseases, which maintain themselves through the agency of host or infection chains, this phenomenon is well known and supported by a rapidly increasing mass of evidence. As a rule the infective agent, whether transmitted directly or indirectly, is transferred from the infected "spender" to the noninfected "receiver." There are, however, some exceptions to this rule. For example, tetanus and botulism are not spread along infection chains, but appear as strictly isolated cases. When a person contracts tetanus, it is impossible to prove that he or she contracted the microbe from an equally infected human being or animal. Furthermore, transmission from man to man never occurs. The causative agents of these diseases are not parasites, but "pathogenic saprophytes." The infectiousness, a characteristic of every true parasite, is absent or only slightly manifest. The ability to exist and to multiply in the inanimate world is, however, fully developed; although the fungus coccidioides, which may be found in the soil of the regions in which the disease has been recognized, is more likely a "pathogenic saprophyte" with tendencies, however, to strict parasitism. In this biologic category has been placed the actinomyces, a fungus which in exceptional instances passes from an infected animal to man. It enters the body on foreign bodies on which it leads a saprophytic existence. When once introduced, the ray fungus behaves like a true parasite; it multiplies rapidly within the tissues of the host. The pathogenic effect is not conditioned by specific toxins; in fact not even febrigenic substances are formed, since the uncomplicated actinomycosis usually shows an afebrile course. Does the fungus coccidioides belong to this group? The biologist is very eager to know.

Aside from the purely academic questions, a great many others suggest themselves when reading this splendid study. Why is it that newcomers to the San Joaquin Valley are more liable to clinically recognizable coccidioides disease? Is the apparent refractoriness of the residents real, and if so is it conditioned by a previous, in all likelihood subclinical, immunizing infection by the saprophyte? Immediately the next question arises, can this acquired resistance be demonstrated? Can it be measured? Some efforts along these lines have been made; thus far merely the existence of a cutaneous allergy has been recognized. However, the distribution and the significance of the allergies in the communities in which the disease occurs remains to be determined. Would it not be advantageous to supplement the tuberculin-testing campaigns now in progress in many rural schools with coccidioidin tests? There may be some hesitancy on the part of those responsible for such a program, since the reagents frequently used cause severe and painful local, and even general reactions. Some procedure of standardization should, however, yield a uniform testing reagent which induces reactions of the same intensity and specificity as the tuberculin.

The pathogenesis of the coccidioidal granuloma, as sketched by Doctor Dickson, raises additional questions concerning the mechanism which confines the primary infection to the lung and its regional lymph nodes. Should one assume that the process remains local because fortuitous circumstances fail to corrode a blood vessel and thus allow the fungoidal spores to be transported in the blood stream to outlying areas? Just as in tuberculosis the ability to focalize the primary childhood tubercle is conditioned by genetic factors, so the resistance to generalization of the fungus coccidioides is perhaps influenced by similar factors. Some of these ideas are open to experimental approach on monkeys. In this species both local and general infections may be produced with ease. The Renaissance period in the study of coccidioidomysis, thanks to the work of Doctor Dickson, is at hand.

❊

Hiram E. Miller, M.D. (384 Post Street, San Francisco).—This is the first publication in a number of years that has given any new ideas on the clinical course of coccidioides immitis infections. Some of us have believed that a number of the inhabitants of the San Joaquin Valley acquired the disease in childhood, recovered from it and developed an immunity that remained with them throughout life. It is of interest in this regard that a large number of the patients reported had been in the San Joaquin Valley for only a few days or weeks. The disease, as reported to the State Board of Public Health, was not often observed in the old inhabitants of the Valley. It will be most interesting if it can be established that so-called "valley fever" is of frequent occurrence, and is due to an infection with coccidioides immitis. A term of this type is often a symptom-complex and not an entity.

The extent of the associated skin eruption and its rapid involution in some of these patients suggest that it would be better to classify it as a toxic eruption, and not as erythema nodosum. Erythema nodosum is always a nodular eruption. It generally occurs only on the lower legs, seldom recurs, and generally remains for two or four weeks. It would be of value to obtain a biopsy from one of these skin lesions.

The suggestion that the general term of "coccidioidomycosis," be used in place of coccidioidal granuloma, is well founded. This would be in keeping with the terminology of other deep mycosis—that is, actinomycosis and blastomycosis.

It has also been our experience that the coccidioidin test is a specific one. It would be of considerable interest if this test could be done on a large number of inhabitants of the San Joaquin Valley.

❊

Roland B. Tupper, M.D. (2607 Fresno Street, Fresno). The author has discovered a new manifestation for coccidioides. The term "valley fever," however, must be localized to the southern part of the San Joaquin Valley, as I have inquired of several old practitioners in this locality and none had ever heard "valley fever" applied to erythema nodosum. I personally have never come in contact with the term "valley fever." However, coccidioides, as we know it here, is called "San Joaquin valley disease."

Whether or not all of the cases of erythema nodosum are caused by the fungus coccidioides, is yet to be determined. It is my opinion that the fungus coccidioides is one of many causes. Within the last month, a patient with an atypical case of erythema nodosum entered the General Hospital of Fresno County. I suggested an examination of the sputum for the coccidioides fungus, and the report came back positive. This patient had no evidence of granulomata on his body. One of the nodules was excised, but it was not a true granuloma. There are always cases of coccidioidal granuloma in the General Hospital of Fresno County, but there are comparatively few of erythema nodosum. The coccidioidal granuloma that we see here is found in persons who are in close contact with the soil, whereas the erythema nodosum is usually found among those of a better class.

For several years I have been examining fresh specimens of sputum in cases of long-continued fever with pulmonary involvement. I have been suspicious of coccidioides in these patients, but I have not found the fungus, due, no doubt, to the fact that few cultures were made. It is with interest that I shall continue to search for coccidioides in our cases of erythema nodosum, those of long-continued fever with lung involvement, with or without nodules on the shins.

SUBCUTANEOUS GLOMUS TUMOR*

By L. R. Chandler, M.D.
San Francisco

Discussion *by David A. Wood, M. D., San Francisco; Harold E. Crow, M. D., Los Angeles.*

A SUBCUTANEOUS glomus tumor is a rare, benign tumor occurring in the stratum reticulare of the skin and originating in the normal neuromyoarterial glomus. Although this tumor was described first in 1924[1] and several case reports[2] are available in the literature, I feel justified in bringing it to your attention because of its unusual clinical features and benign character.

NORMAL GLOMUS BODY

The normal glomus body is described with unusual clarity by Popoff[3] as a normal anatomic structure, and is a specialized arteriovenous anastomosis. This anastomosis possesses a nervous mechanism which transforms the "glomus" into a sort of valve or peripheral pump, which influences the amount and rate of blood flow through the capillary bed. These neuromyoarterial bodies are constantly present in great numbers in the region of the nail bed, the tips of the digits, the palmar surfaces of the phalanges, the thenar and hypothenar eminence of the hand, and in similar regions in the foot. They also occur, in lesser numbers, in the skin of the extremities. The anastomosis is S-shaped in appearance, the lumen is narrow and irregular, its endothelial cells are voluminous and cuboidal, and arranged in several layers. The inner longitudinal and outer circular layers of the muscular coat are indistinct, and in this region there are large, clear, epithelial-like cells, whose nuclei are poor in chromatin. The outer zone of the glomus consists of a loose, delicate, collagenous reticulum, in the meshes of which are seen numerous, nonmedullated nerve fibers.

FUNCTION OF THE NORMAL GLOMUS

The function of the normal glomus seems to be to regulate both the local and general temperature of the body by diverting arterial blood through the anastomosis into deep collecting veins. When fully open the glomic system allows an enormous amount of blood to flow through the digits. It is of interest that the fetus has no glomic units, which appear a few months after birth, and that premature infants are unable to regulate body temperature properly for some time, possibly not until the glomic units have developed.

CLINICAL CHARACTERISTICS

The clinical characteristics of subcutaneous glomus tumor are striking. The tumors occur on the extremities and are found most frequently under or near the nails. Pain is the outstanding feature in almost every instance, and is either spontaneous or provoked. The pain is severe, usually of a burning character, and at times is paroxysmal and intermittent. Pain almost always is made worse by pressure, and in some cases by changes in temperature. Not long after the onset the pain becomes radiating in character, and in long-standing cases may involve the entire extremity.

Fig. 1.—Note glomus tumor just above the great-toe nail.

The tumor is small, seldom more than one centimeter in diameter and usually raised a few millimeters above the surrounding tissue, and is slow-growing. Multiple tumors are rare. The majority of the tumors are purple or rose color, although a few are described as blue or violet. They are palpated with difficulty, as pressure on the tumor almost always produces severe pain. In some instances the affected part is warmer than the remainder of the extremity, and the seizures of pain are accompanied by sweating. Often these tumors produce erosion of the underlying bone which can be demonstrated easily by roentgenograms.

HISTOPATHOLOGY

Histopathologically, glomus tumors are nonmalignant, circumscribed, organoid overgrowths arising from the normal cutaneous glomus. The glomus is composed of nerve, smooth muscle and angiomatous elements. The smooth muscle becomes altered by a loss of myofibrillae, forming Masson's so-called epithelioid cells. It is thought by Masson that these become further altered to form large globular "argentophile" cells with granular, darkly staining cytoplasm and a clear, centrally located nucleus. These, which are the so-called glomus cells, lie along the course of nonmyelinated nerve fibers and are comparable to the neurocine cells of Berger. The nerve fibers are very abundant, and are thought to be derived from the superficial dermal nerves which have lost their myeline sheaths. By special staining with Cajal technique, slightly bulbous endings of these nonmyelinated fibers can be seen to end within the cytoplasm of the glomus cell.

Any element in the neuromyoangiomatous structure may predominate, and in some of these elements are masked by degenerative changes, so that we have four types of glomic tumors, according

* Read before the General Surgery Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.

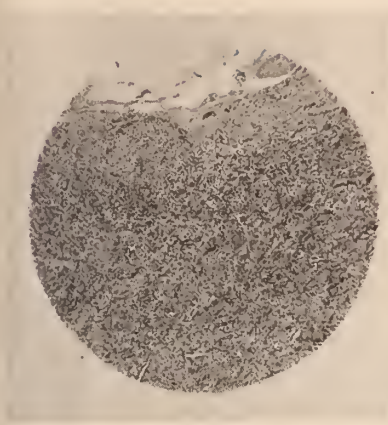

Fig. 2

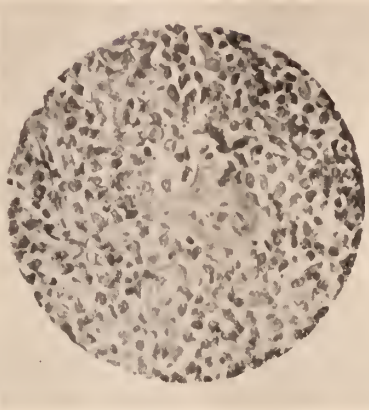

Fig. 3

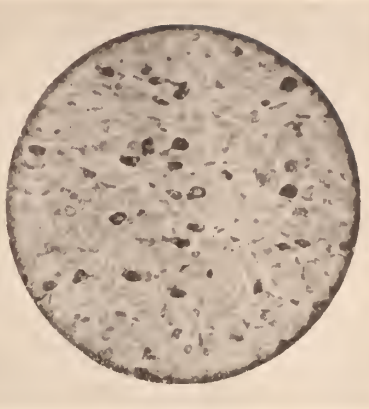

Fig. 4

Fig. 2.—Edge of glomus tumor limited by narrow fibrous capsule. Tumor composed of "epithelioid" cells. H. and E. stain. Magnification, x 100.

Fig. 3.—Glomus tumor, "epithelioid" cells, collagenous fibrous stroma, and small blood vessel. Masson's stain. Magnification, x 450.

Fig. 4.—Glomus tumor. Cresyl echt violet stain. The granular cells shown by this stain correspond to the argynophil or glomus cells, as demonstrated by silver staining. Magnification, x 450.

to Masson: (1) Poorly vascularized epithelioid; (2) angiomatous; (3) neuromatous; and (4) degenerative.

Degeneration in any of the types may ensue from an edema which separates the pseudolobules of the tumor, or from mucinous or hyaline changes.

During the past two years, several glomus tumors have been seen and the following case is a typical epithelioid type of glomus tumor.

REPORT OF CASE

Mrs. L. M. Age, fifty years. When first seen in December, 1936, this patient complained of pain in her right great toe, which had been present for twenty-eight years. She had injured the nail on this toe when she was ten years old, but was free of pain until the age of twenty-two. At this time she began having spasms of severe pain when the toe was touched. At first the pain was a severe burning sensation, confined to the toe and base of the nail. Later the pain spread to the other toes and the foot and, for the past eight years, pressure on the toe has caused severe pain in the toes, foot, leg, and thigh, and at times the right side of the body. She has great difficulty in wearing a leather shoe. For the past ten years there has been a small, purple, raised spot on the lateral aspect of the toe, just above the nail. When this spot is touched, she has paroxysms of exquisite pain as described above.

She has consulted a number of physicians. The edges of the nail have been removed twice for ingrown toenail; the entire nail has been avulsed once; the area was incised once for a supposed periostitis. None of these treatments produced any relief.

Examination.—On examination the right great-toe nail was found to be quite thick. On the lateral aspect of the toe, just above the matrix of the nail, was a conical-shaped tumor about one centimeter in diameter, and raised nearly five millimeters above the surrounding skin. The central portion of the tumor was purplish in color (Fig. 1). When this was touched, even lightly with a piece of gauze, the patient had paroxysms of severe pain, involving all the toes, the foot and leg, and sometimes the thigh. The skin of the foot became moist with perspiration. The subcutaneous fat was much less in amount on the right toe and foot, just above the toe, than it was in the corresponding portion of the left foot and toe. On palpation, which was quite painful, there was a soft but not compressible tumor nearly one centimeter in diameter beneath the skin, loosely attached to the skin and moderately attached to the underlying phalanx. Skin temperature determinations were not made.

X-ray examination of the right great toe showed "a tiny amount of erosion on the dorsal, distal margin of the distal phalanx of the toe. This erosion is smooth."

Diagnosis.—A diagnosis of subcutaneous glomus tumor was made, and under general anesthesia the tumor and some of the overlying skin were removed through an elliptical incision. The tumor was reddish-purple in color, loosely encapsulated, and was roughly 10 by 10 by 7 millimeters in size.*

Histology.—The histologic examination showed a circumscribed tumor surrounded by a fibrous capsule of moderate thickness, and embedded in areolar-adipose connective tissue. The tumor was diffusely cellular, except for irregular fibrohyaline bands of varying width which divided the tumor into pseudo-lobules (Fig. 2). These bands supported a moderate number of blood vessels. In addition to the blood vessels and fibrous septal bands, the tumor was composed of oval cells with oval, pale-staining nuclei. A few were slightly larger and showed a more intense acidophilic staining of the cytoplasm. Masson's tricolor stain showed that a number of these cells were smooth muscle cells, and others which morphologically were similar in gross detail, showed a loss of myofibrillae, staining purple instead of red. These were the so-called epithelioid cells of Masson (Fig. 3). Cresyl Echt violet stain showed moderate numbers of large globular-shaped cells whose cytoplasm was laden with many fine granules, staining a deep violet color (Fig. 4). These cells were well demonstrated by Cajal's reduced silver stain, which identified them as the argentophile or glomus cell. This stain also showed fine, nonmyelinated nerve fibers which lay between the epithelioid cells. A few showed definite nerve endings within the glomus cells. The diagnosis was typical glomus tumor (epithelioid type).

Course.—The wound was sensitive for a few days after the operation, but the patient has since not had any severe pain such as she experienced for twenty-eight years before the operation. She now wears a leather shoe with complete comfort, and does her regular work without any discomfort whatsoever.

COMMENT

Subcutaneous glomus tumor presents characteristic signs and symptoms, and should be considered in every case of painful tumor in the extremities. It may be confused with angioma, melanoma, neurinoma, endothelioma or any of these elements in a malignant state, *i. e.*, melanosarcoma, and frequently is mistaken for periostitis, felon, subungual exostosis or clavus. The tumors are benign, not malignant. The treatment is local excision, which produces prompt and complete relief. These tu-

* I am deeply indebted to Dr. David A. Wood of the Department of Pathology, Stanford University School of Medicine, for the histologic examination in this case.

mors are so painful that the use of local anesthesia usually is not satisfactory. Radium or roentgen therapy is not indicated, and has been of no benefit in reported cases in which it has been used.

Although glomus tumor was recognized and described in 1924 by Masson, it is more than likely that the disease described in older textbooks and by early writers[4] as "painful subcutaneous tubercle" was subcutaneous glomus tumor.

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DISCUSSION

David A. Wood, M. D. (Department of Pathology, Stanford University School of Medicine, San Francisco).—Doctor Chandler has quite adequately described the clinical and morphological features of glomus tumors. From a pathological viewpoint, it is important to point out that glomus tumors are probably much more frequent than present statistics indicate, many are erroneously diagnosed angiomas, neuromas, myomas, etc. Inasmuch as glomus tumors are organoid in type, and any of the various constituents may predominate, special stains are necessary in order to make the correct histological diagnosis. It is all the more paramount, therefore, that the histopathologist should be furnished with a brief, but adequate history on all subcutaneous tumors, so that he may be made familiar with the clinical story, and order special stains on all cases clinically suspicious. Demonstration of the argentophil granules in the "glomus cells" can be readily accomplished by the use of cresyl echt-violet stain, a procedure much more simple than the Cajal reduced-silver technique.

Harold E. Crow, M. D. (2417 South Hope Street, Los Angeles).—I wish to report an additional case in which the symptoms were of twelve years' duration, and relieved by the removal of a glomus tumor which lay under the toenail in the proximal portion of the nail bed. The medical history is chiefly interesting because of the number of diagnoses which had been offered this patient through a period of twelve years. The diagnoses were as follows: Gout, arthritis, brain tumor, spinal cord tumor, neuralgia of the sensory nerve supply to the great toe, an atypical Buerger's disease. All of these diagnoses were made by reputable physicians and followed by adequate treatment for the current diagnosis, without any relief of the patient's symptoms. At the end of twelve years the pain was still recurring at intervals of one to two weeks, lasting forty-eight hours at each attack and sufficiently severe to require morphin for relief. As the years progressed, the pain became more extensive, so that at the time of our examination she complained that the pain started in the great toe, involving the entire leg and thigh during the forty-eight hours of suffering. The patient is now four months postoperative, and has had no recurrence of symptoms.

One sign mentioned in Doctor Chandler's paper, which must be emphasized since it is so characteristic as to be diagnostic, is the occurrence of sudden, unprovoked pain at intervals. The "trigger pain" is characteristic of this tumor.

RADIATION THERAPY: ITS STATUS IN THE PRACTICE OF MEDICINE*

By William E. Costolow, M.D.
Los Angeles

THE rapid advance which has been made in radiology during the past few years is constantly before the eyes of those of us who are working in that field. The changes in types of apparatus and technique—in diagnosis and therapy—have made it difficult even for one who specializes in this branch of medicine to keep abreast of this progress. How, then, can the general medical man be expected to understand its value and the indications for its use?

Although this science dates back to shortly before the beginning of the century, radiation therapy has been almost completely developed and placed on a scientific basis during the past fifteen years. Most medical men now in practice were taught nothing regarding this subject during their medical school days. In fact, only recently have lectures and clinics in radiology been included in the medical curriculum.

In practice, the requirements of expensive apparatus and special training in technique, coupled with the fear of using a potentially dangerous modality, have almost entirely prevented the use of radiation therapy by the general practitioner. Realizing that the members of this Section are, themselves, radiologists, it may nevertheless not be amiss to review and consider some of the recent advances.

In the development of any new method of treatment there is always an overenthusiasm, and radiation therapy has proved no exception to the rule. At first, attempts were made to treat practically all pathological processes of the skin and its contents. As a better understanding of the physical properties and biological effects of the rays has been obtained, more definite indications and contraindications for its use have been established and the knowledge passed on to the general medical practitioner. At times, irradiation has been considered as only a part of cancer therapy, whereas its most extensive use is probably in the treatment of benign conditions.

RADIATION THERAPY FOR INFLAMMATORY CONDITIONS

In cellulitis, furunculosis, carbuncles, adenitis, and acute surgical parotitis, irradiation has been used extensively for a great many years. In these acute inflammations the rays destroy the surrounding leukocytes, liberating protective substances or antibodies, making them more rapidly available for combating the acute infection. The best results are obtained if the treatment is given in the early stages of the inflammatory process. Acute surgical parotitis shows very rapid response if treated within the first twenty-four hours following onset. Radium packs are used chiefly in this condition as a matter of convenience so that the patient will

*Chairman's address, Radiology Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.

not have to be moved from his bed. Simple adenitis in children has been found to be amenable to very small doses of roentgen ray, which should be applied early. Many surgical incisions may be avoided. Treatment of the spreading edges of erysipelas is well known. Irradiation has also been used in the very early stages of sinusitis and mastoiditis—at times abortioning early cases from abscess formation when surgical interference is so frequently necessary.

In chronic inflammations, especially tuberculosis, irradiation has been of great value. Tubercular cervical adenitis may be completely controlled by this means. The extensive surgical block dissections which were done a few years ago for this condition are practically unheard of at the present time. This procedure is harmless to the skin or general condition of the patient. In chronic arthritis, especially gonorrheal arthritis, local roentgen-ray treatment has been a definite aid to other forms of therapy.

In the treatment of acne, irradiation is awarded a prominent rôle by all dermatologists. The fungus infections, actinomycosis, blastomycosis, and others, have also been greatly benefited by irradiation.

USE IN ENDOCRINE DISTURBANCES

Radiation therapy entered the field of endocrinology some time ago, the chief efforts being directed to the thymus, thyroid, pituitary, and ovaries.

Thymus.—While there has been much *discussion* among pediatricians regarding the presence of, or indications for treatment of, suspected enlarged thymus, the therapeutic radiologist is often requested to treat these cases. Often the diagnosis is very difficult to establish, either from symptoms or roentgenological evidence. However, as clinical benefit following treatment of babies with obstructive respiratory symptoms is often obtained, this procedure is frequently carried out. The very small amount of irradiation used as a therapeutic test can in no way be deleterious to the patient.

Thyroid.—Authentic reports in our literature have established the value of irradiation in the treatment of hyperthyroidism. Properly selected cases of toxic goiter have been rendered symptom free. Cases presenting adenomas should undoubtedly be operated upon. Published statistics show that, in uncomplicated hyperthyroidism, irradiation produces about the same percentage of five-year cures as surgery—neither method curing all cases. In recurrences following surgery, irradiation has been used extensively.

Pituitary.—The successes of irradiation in the treatment of the pituitary have been accomplished chiefly in patients with dysmenorrhea, exaggerated menopausal symptoms, and young individuals showing excessive growth.

Conclusive reports have been made of the favorable effect of irradiation upon the pituitary in patients suffering with dysmenorrhea (notably Newell and Petitt). Small doses relieved the majority of their symptoms. In treatment of the pituitary for the relief of severe menopausal symptoms, the effect is due to the reduction of the hyperfunction of the anterior portion of the pituitary. This hyperfunction occurs following the removal of ovarian hormones after the menopause. In young individuals with excessive growth due to hyperfunction of the pituitary, irradiation is used to reduce the overactivity of the gland.

APPLICATION IN GYNECOLOGY

One of the largest fields for radiation therapy has been in gynecology.

Menorrhagia and Fibroids.—The menorrhagias occurring around the menopause and the uterine fibromata have been treated in great numbers by these methods. In 1929, Ernst Von Armon reviewed 15,000 myomas and hemorrhagic metropathies treated in Germany in a five-year period by radiation therapy. Burnham and Kelly of Baltimore have treated over 1,800 cases. In our own clinic (Soiland, Costolow, and Meland) we have treated 1,576 uterine fibroids during the years 1921 to 1936 by irradiation methods alone. As time goes on, the importance of irradiation in the treatment of these conditions is being more definitely established. Not all fibroids, of course, are amenable to irradiation treatment, but in women of forty, or over, the contraindications are becoming fewer, as experience has shown the increasing value of the nonsurgical method, which carries no mortality rate. The chief indications for the treatment of any fibroid are bleeding and pressure symptoms. Irradiation can practically always be relied upon to control the bleeding. In the large majority of cases the fibroid masses will also disappear. In fibroids larger than a four months' pregnancy, it is often difficult to determine the proper diagnosis of the existing pelvic pathology. Few failures in the irradiation treatment of fibroids would occur if only those cases were treated in which a definite diagnosis could be made and complicating coexisting pathology ruled out before treatment was commenced.

The artificial menopause produced by irradiation is no different from the normal menopause—no mental or physical complications of any kind are produced. Occasional cases of excessive nervousness are seen, of course, but these occur in women going through the normal menopause. No change in sexual function is produced, and usually the patient's general condition is noticeably improved.

A combination of intra-uterine radium and external roentgen ray is generally used in the treatment of fibroids, although curettement before treatment, to rule out malignancy, should usually be performed. Roentgen-ray treatment alone is more simple and cannot produce any local complications.

FOR LYMPHOBLASTOMAS

In chronic lymphatic leukemia, myelogenous leukemia, and Hodgkin's disease, the importance of radiation therapy is so well established that little comment is necessary. Except for supportive medical care, irradiation therapy is the accepted method of treatment at the present time. Marked temporary palliation and prolongation of life are obtained.

RÔLE OF RADIATION THERAPY IN CANCER

In cancer, radiation therapy cannot be considered as a comparative or alternate method of treatment to surgery. The two methods must be used properly, both singly and in combination, in a carefully planned manner, if the best results are to be obtained. In fact, a new specialty is appearing—cancer therapy. This particular phase of medicine requires the service of a physician who is thoroughly trained in pathology, radiation therapy, and surgery (if such a superphysician exists!), or the services of a group of men who are trained in these branches and closely associated in the actual care of the cancer patient.

It will be attempted here to briefly sum up the present-day concept of the uses and value of irradiation in the more common types of cancer met in daily practice.

Skin Malignancies.—Skin malignancies may be destroyed by any local method which will destroy all the tumor cells. Surgery, cauterization, caustics, radium, and roentgen ray have all been used successfully. The location of the growth often determines the agent which should be used to assure the best cosmetic results, together with adequate destruction. For this reason radium is nearly always used in treating growths around the eyelids and nose. Many advanced destructive lesions around the face have been successfully treated by fractionated doses of radium and roentgen ray, preventing deformities which would have been produced had surgical excision or extensive cauterization been used. The primary lesion in practically all skin malignancies can be eradicated by proper irradiation. Lip and intra-oral lesions are usually quite amenable to irradiation and electrocoagulation. Radium seeds and needles are the accepted methods of treating tongue malignancies in nearly all cancer clinics. Primary lip malignancies can almost always be controlled by adequate irradiation, and better cosmetic results obtained than with surgery. Metastatic neck glands often necessitate a combination of surgery and irradiation.

Malignancies of the Pharynx, Tonsil, and Larynx.—These have been almost entirely relegated to the field of irradiation. The pharyngeal and tonsil lesions are usually highly malignant and radiosensitive. In carcinoma of the tonsil practically all of the recorded five-year cures have been produced by irradiation. Intrinsic carcinoma of the larynx is considered surgical by many authorities, and the results have been good. Equally good irradiation results have been reported by Coutard and others. The extrinsic laryngeal involvements are treated almost entirely by this method for palliation, and with the hope of occasional arrests.

Carcinoma of Thyroid. — For this condition much palliation has been achieved by irradiation, with permanent results in a small percentage of cases. The majority of the cases submitted are postoperative or recurrent, as the diagnosis of malignancy of the thyroid is usually not made, except in advance cases, until after operation.

Carcinoma of the Bronchus.—Here little has been accomplished, either by irradiation or surgery. Occasional palliative effects occur after irradiation, but these are no doubt due to the reduction of the inflammation accompanying the growth. Practically no permanent results have been obtained in carcinoma of the esophagus. At times the primary growth in the esophagus has been completely destroyed, but the patient dies later as the result of liver metastasis.

Cancer of the Stomach and Intestines.—These show an even less favorable prognosis, irradiation being of doubtful palliative value. Intestinal malignancies, if early, are entirely in the domain of surgery; while squamous-cell malignancies of the anal region represent the only field where irradiation may be indicated, except for palliative reasons.

Cancer of the Rectum.—Radium and roentgen-ray therapy have been of quite definite palliative value in advanced cancer of the rectum by checking the bleeding and causing shrinkage of the local growth. In many instances the patient's life has been prolonged, and he has been made more comfortable, even without colostomy, until death is produced by distant metastasis.

IN UROLOGY

Irradiation has been more successful in the treatment of urological conditions. In the highly malignant testicular tumors it has been generally used in the treatment of the pelvic glands, and in many quarters for the preoperative treatment of the primary tumor. Preoperative treatment of the rapid-growing, highly malignant tumors of the kidney cortex is also advocated, and apparently justified. In extensive inoperable bladder papillomas and carcinomas, irradiation is indicated.

Localized bladder tumors, if early, may be resected; surgery offering little or nothing to the patient where the growth covers most of the bladder. Here, irradiation will check bleeding, frequently producing definite disappearance of tumor tissue, and in highly malignant tumors may arrest the growth permanently. In extensive growths, if cauterization is to be used with irradiation, it should follow the irradiation and not precede it.

Some palliation has been achieved in carcinoma of the prostate, chiefly in relieving pain in the bone metastasis in the spine and pelvis.

CARCINOMA OF THE BREAST

Carcinoma, when apparently confined entirely to the breast, is usually treated by surgery alone. If axillary glands are discovered at operation, then postoperative irradiation should be carried out. When axillary glands are present, the case cannot be considered entirely surgical, but is better treated by a combination of surgery and irradiation; or irradiation alone, if the growth is large and the history shows that the progress has been rapid. In recent years preoperative treatment of the entire breast and axilla by roentgen rays (for cases with axillary involvement) has been widely encouraged. This is carried out by means of prolonged fractionated daily doses over a period of three or four weeks, followed by operation in six weeks to two months. Irradiation in inoperable and recurrent

malignancies has won an indisputable place as a palliative measure in breast malignancies.

CARCINOMA OF THE UTERUS

Carcinoma of the cervix uteri has been treated in England, France, the Scandinavian countries and in the United States almost entirely by irradiation for the past few years. Voluminous statistics have shown its superiority over the surgical operation, with its attendant high mortality.

There has been steady and gradual progress in the field of radiation therapy—apparatus has improved and, most important of all, knowledge has increased. This latter fact has undoubtedly been the greatest incentive to progress. Those of us who are using roentgen-ray apparatus at a voltage of a half-million or more have noticed a far greater improvement in the primary regression in cervical carcinoma patients than was seen when we were treating with two hundred thousand volts. However, as other treatment factors of time, filtration, fractionation of dosage and total dosage have also been changed, it is not logical to attribute this improvement wholly to the increase in voltage, but probably to the more adequate irradiation which the pelvis has received. Radium is still used in conjunction with the external roentgen ray in the treatment of all cases of cancer of the cervix.

Early carcinoma of the fundus has yielded good results in the past from surgery. Results of cases treated by irradiation alone closely approximate those of surgery. A combination treatment of preoperative intra-uterine radium and postoperative roentgen ray, with surgery, shows better results than either method when used alone.

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POSTERIOR VAGINAL HERNIA*

By RAY B. McCARTY, M.D.
Riverside

DISCUSSION *by William P. Kroger, M. D., Los Angeles; Bon O. Adams, M. D., Riverside; Hall G. Holder, M. D., San Diego.*

POSTERIOR vaginal hernia is an oddity which is usually easy to recognize if one is aware of its possibility. It consists of a peritoneal sac, with abdominal contents, which has pushed its way through the cul-de-sac, presenting itself in the vagina. Its surgical repair is generally successful; however, many of the cases reported had repeatedly been mistaken for high rectoceles, with resultant failure in repair before the true nature of the condition was recognized.

CLASSIFICATION

Posterior vaginal hernia falls into Miles's[9] classification of pelvic hernia, which is a general term embracing all herniae with a peritoneal sac going through the pelvic floor. These pelvic herniae are further subdivided according to their point of appearance; *i. e.*, vaginal hernia in the vagina, perineal hernia in the perineum, and pudendal hernia in the labia. The vaginal herniae are further subdivided into anterior and posterior, according to the point of exit of the sac in relation to the uterus. Miles does not group postoperative vaginal herniae separately but, as Masson and Simon[8] point out, "they form a distinct type and should be included as a third subdivision in this classification."

Cystocele and rectocele are not included in the classification, since a peritoneal sac is not present. Furthermore, Miles[9] does not include prolapsus of the uterus accompanied by a large bulging cul-de-sac in his classification. He states that this condition is due to a descent of the floor of the pelvis and presents "no true hernial sac, and no ring or aperture through which the viscera herniate." He describes this condition as elytrocele or vaginal enterocele.

LITERATURE

But few cases of vaginal hernia have been reported in the literature. According to Barker,[1] the first case recorded was published in the early part of the eighteenth century by Garengeot. In 1804, Sir Astley Cooper[4] included an illustration of a case in his classic work on hernia. Bueermann,[3] in 1932, found eighty-six cases of vaginal hernia recorded in the literature, some of which were found with incomplete data or only by title. Of this number, Bueermann was able to evaluate the data on seventy-six cases and of this number, fifty-six, or 73.8 per cent, were found to be of the posterior vaginal type, whereas fifteen, or 19.7 per cent, were of the anterior type. No indication as to the location of the hernia was found in 6.5 per cent of the cases. Since that time Black[2] and Williamson (quoted by Black) have each reported one case, while Dew[5] and Stearns[10] have each reported two cases. These make a total of sixty-two cases of reported posterior vaginal hernia.

Through the courtesy of Dr. Bon O. Adams, in whose service the following case was operated by Doctor Adams and myself at the Riverside Community Hospital, I will add to the sixty-two cases previously reported, the sixty-third, as follows:

REPORT OF CASE

Mrs. L. R. H. Age, forty.

Chief Complaint.—Protrusion from the vagina, associated with a bearing-down feeling in the pelvis when on her feet.

Family History.—The family history is negative. Menstrual periods regular; twenty-eight-day type and of six days' duration. Moderate menorrhagia for the past three years. No menstrual pain. Always has had moderate leukorrhea.

Two children living and well, eleven and three years of age. The first delivery, eleven years ago, was by forceps. Ten years ago, a stillbirth occurred at term. This was also a forceps' delivery, and the child weighed thirteen and one-half pounds. Nine years ago a trachelorrhaphy, perineorrhaphy, a Baldy-Webster suspension, and left oöphorectomy were performed. The left ovary was removed because of a simple cyst (7 by 5 centimeters). Three years ago cesarean section was performed two weeks before the expected term of pregnancy.

Present History.—Shortly after the cesarean section the patient felt as if something were "dropping down in the vagina," only when on her feet. In the past year and a half this had been associated with a protrusion from the vagina "the size of a fist," and a bearing-down feeling in the pelvis after being on her feet throughout the day.

* Read before the General Surgery Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.

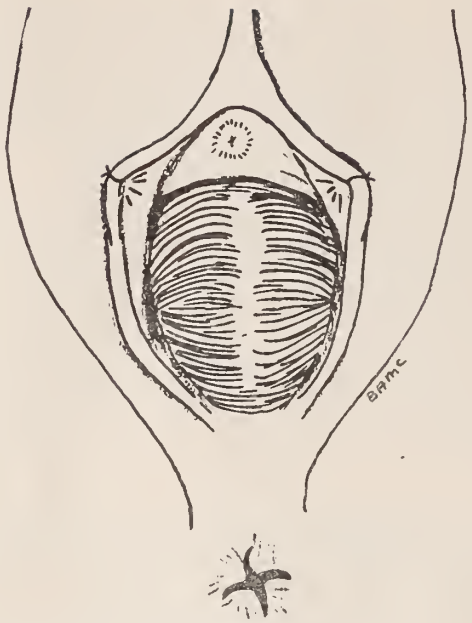

Fig. 1.—Posterior vaginal hernia presenting at vaginal orifice

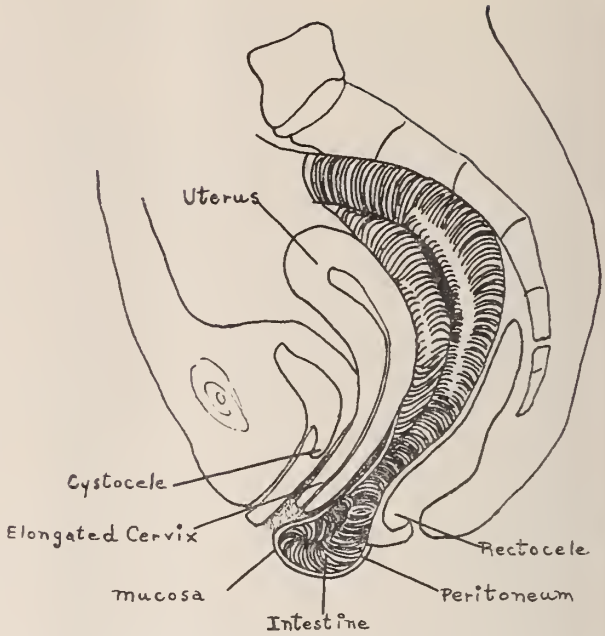

Fig. 2.—Sagittal section, showing relation of the posterior vaginal hernia to the pelvic organs

Physical Examination.—Patient was a well-developed and nourished adult female of about forty years of age, who appeared to be in good health. The general examination was negative except for the pelvic findings, which were as follows: A second-degree laceration of the perineum; a moderate cystocele; an elongated hypertrophic cervix about three and one-half inches in length which, on straining, failed to descend to any extent; and a mass the size of a small orange arising from the posterior vaginal vault directly behind the cervix in the mid-line, and which partially extruded at the vaginal orifice (Figs. 1 and 2). This mass was soft and yielding and could be reduced, but recurred on having the patient strain or stand. On having the patient cough, a definite impulse was felt, and on one occasion a slight gurgling was heard on reduction of the hernia. Digital rectal examination revealed the small rectocele, but the examining finger failed to enter the protruding mass. The uterus was anteflexed, of normal size and moveable. The adnexal regions were negative. A diagnosis of posterior vaginal hernia, cystocele, rectocele, and elongated hypertrophic cervix was made.

Operation.—On November 23, 1936, the patient was operated upon under avertin and ether anesthesia. The usual incision and dissection were made, as for a perineorrhaphy. On encountering the peritoneal sac toward the upper limits of the incision, the incision was extended, and the peritoneal sac isolated to its base in the median line in the posterior vaginal vault (Fig. 3). The sac was opened, and after reducing its contents it was transfixed and ligated at its base, the sac amputated and the stump sutured into the posterior wall of the uterus (Fig. 4). The surrounding fascia was then included in a purse-string suture, and this part of the operation completed as a high perineorrhaphy. A high amputation of the cervix was then carried out, followed by repair of the cystocele. An uneventful convalescence followed, and on examination two months post-

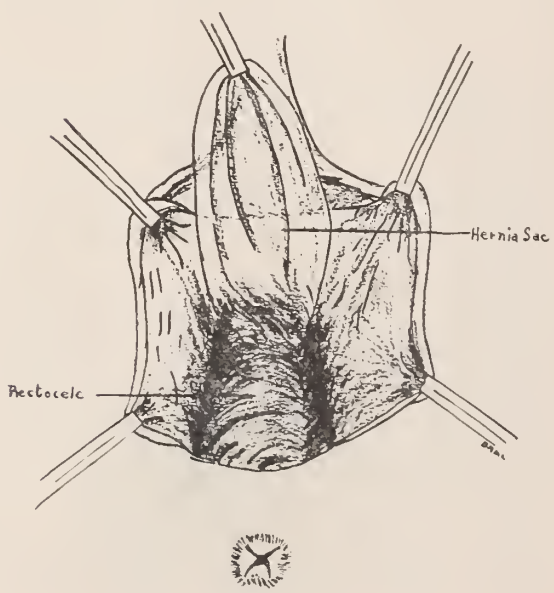

Fig. 3.—Hernial sac isolated to its base

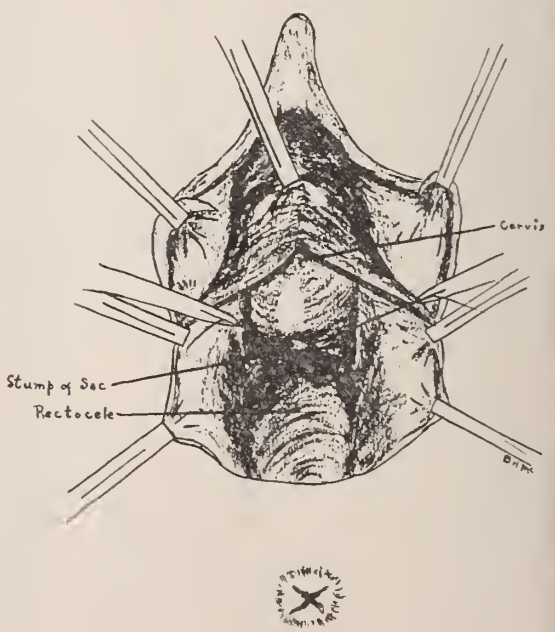

Fig. 4.—Ligated stump of sac which has been sutured into the posterior wall of uterus

operative a firm perineum was found with no tendency toward recurrence.

ETIOLOGY

In common with other herniae this type possesses the possibility of being either congenital or acquired. In the above reported case there can be no question but that the hard labors, with their accompanying trauma, were at least the predisposing factors in the development of the hernia. That trauma incident to childbirth is important, is shown by the fact that in forty-two cases Bueermann[3] found that 90.4 per cent had borne children, and only four were nulliparas.

Zuckerkandl[13] and others have shown that in the fetus the cul-de-sac extends to the levator ani muscles and that its depth decreases until puberty, when it reaches the level of the second or third sacral vertebra. Daniel Jones[6] has described the congenital and acquired types of deep cul-de-sac. He considers the congenital type rare, and it is this type that would naturally predispose to the development of a hernia during childbirth or some other unusual strain.

DIAGNOSIS

As a rule the symptoms of a posterior vaginal hernia are those of a rectocele, and on examination when an apparent high rectocele is found it is well to consider the possibility of a hernia. This is especially so if the patient has had one or more pregnancies, or has been operated upon previously for a rectocele with a resultant recurrence.

This type of hernia originates in the posterior vaginal vault in the mid-line; and as the internal ring of the hernia is large, the mass may largely reduce itself when the patient assumes the lithotomy position, but will recur on having the patient strain, cough or stand in the erect posture. Coughing will cause a definite impulse, particularly if the hernia has been reduced, and gurgling may frequently be heard on reducing the mass. Bueermann[3] has described a sign pathognomonic of small intestinal contents in the sac, *i. e.*, the sac is digitally irritated, and peristaltic waves may be seen to course over the surface of the sac.

In questionable cases a rectal examination always proves to be a reliable method of differential diagnosis. The finger will enter a rectocele protrusion, but not the main portion of a hernial mass. However, with a large rectocele, if a positive diagnosis is not made preoperatively, the vaginal wall should be dissected high up and search made for a sac.

Inclusion cysts, Gärtner's duct cysts, and tumors of the vagina are usually easily differentiated from posterior vaginal herniae.

TREATMENT

The treatment of posterior vaginal hernia is surgical and, as pointed out by Masson,[7,8] the essential principles governing the treatment of hernia in general must be followed. These principles are "isolation of the sac, disposal of the sac, and repair of the defect at the point of egress of the hernia from the abdomen."

No uniform surgical procedure has been adopted, as most patients with posterior vaginal hernia have had one or more pregnancies, and associated malpositions of the pelvic organs may be encountered which also require surgical correction. If laparotomy is not contemplated, the hernia can usually be repaired successfully by the vaginal route as outlined in the case report. Rather than suturing the stump of the sac to the posterior wall of the uterus, as was done in this case after Black's[2] method, Ward[11,12] has used the technique of uniting the uterosacral ligaments as close to the rectum as possible after disposing of the sac.

If the combined vaginal and abdominal type of operation is to be done, Masson[7,8] reduces the hernia, inverts the sac into the abdomen and then repairs the perineum. On opening the abdomen, the completely inverted sac is sutured to the posterior wall of the uterus, and a series of purse-string sutures is inserted between the sigmoid and the posterior wall of the uterus, thus obliterating the cul-de-sac. Masson[7] also mentions the method, which would be adaptable to some cases, of opening the peritoneum in front of the uterus after the sac is inverted and drawing the uterus and sac through the opening and suturing them together, or excising the excess tissue of the sac and closing the opening with a purse-string suture.

If abdominal exploration is advisable preliminary to the vaginal operation, the neck of the sac is closed by purse-string suture, the cul-de-sac is obliterated, and the vaginal operation completed immediately, or at a later date before the patient is allowed out of bed.

Uterine prolapse is often associated with a large bulging cul-de-sac, which is termed "vaginal enterocele" by Miles,[9] and "posterior vaginal" hernia by others. This can be successfully repaired by the vaginal route at the same time that the vaginal hysterectomy is done.

IN CONCLUSION

It may be pointed out that the important feature in this type of case is the necessity for a careful differential diagnosis between a simple rectocele and a posterior vaginal hernia which usually, although not invariably, is complicated by a rectocele.

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Mission Inn Rotunda.

DISCUSSION

William P. Kroger, M. D. (1930 Wilshire Boulevard, Los Angeles).—The fact that a true posterior vaginal hernia is unique probably accounts for its being so fre-

quently confused with a high rectocele. Unless the hernia is pronounced or shows a definite sac containing the bowel, an enterocele, a preoperative diagnosis is difficult.

If the condition remains unrecognized during a perineorrhaphy, the operative result will be disappointing.

In two of the three cases that have come to our attention, a previous perineorrhaphy had been done. In our last case there was an associated uterine prolapse which required a vaginal hysterectomy. Apparently the constant traction of the contents of the hernia tended to drag the uterus with it, and was a factor in producing the prolapse. The action was similar to a sliding inguinal hernia, where the colon is pulled into the canal.

Doctor McCarty's operative technique seems to be universally employed. The detail of attaching the stump of the sac to the posterior surface of the uterus seems of value, and we shall employ it in our future cases. The results from this type of operation seem to be good, and rarely is it necessary to go into the abdomen from above.

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Bon O. Adams, M. D. (Mission Inn Rotunda, Riverside).—The study of posterior vaginal hernia, which Doctor McCarty has presented, is a very important one, both to the patient and to the careful diagnostician. I, myself, failed to recognize the true condition in the case which the doctor reports—indeed, I had repaired the "rectocele" in this case, some nine years ago, and failed to recognize the true posterior vaginal hernia which was probably present at that time. I considered this case a recurrence of the "rectocele" which I had operated, until Doctor McCarty was able to demonstrate to me at operation the presence of a hernial sac and its contents. The contents were reduced, the sac amputated, and the stump anchored to the posterior uterine wall.

The point of differential diagnosis which should be emphasized is that the finger in the rectum will curve into the rectocele and demonstrate only a two-wall septum; *i. e.*, the anterior rectal wall and the posterior vaginal wall, whereas, if a hernia complicates the rectocele, the interbimanual mass is thicker, and can be felt to impulse on coughing and to gas-gurgle upon bimanual manipulation for reduction of the hernia. The technique of repair has been well described in the paper, and need not be amplified.

We are indebted to Doctor McCarty for his lucid presentation of this important paper upon a condition, the diagnosis of which I am sure I must have missed more than once, and I dare say many others have overlooked at times.

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Hall G. Holder, M. D. (233 A Street, San Diego).—I have never seen a true posterior vaginal hernia such as Doctor McCarty describes.

My interest in this subject is in vaginal enterocele. This condition is present in vaginal prolapse in a far larger per cent of cases than is generally recognized, and undoubtedly accounts for many of the poor results in the operative treatment of this condition. It is important, therefore, in the surgical treatment of vaginal prolapse to properly diagnose vaginal enterocele, and it is further necessary that some definite surgical procedure be in mind for its correction in addition to total vaginal hysterectomy. The differential diagnosis may be easily made as so clearly brought out by Doctor McCarty following rectal examination. In cases of vaginal prolapse it has been my practice to employ the Mayo technique of plication of the broad ligaments after total vaginal hysterectomy under the symphysis as a basis for the cure of the cystocele. This procedure has been very satisfactory, as far as it goes, but in addition the treatment of the vaginal enterocele, which is almost always present, should be taken into consideration.

It is very simple at the time of hysterectomy to dissect out the peritoneal pouch of the enterocele herniating through the cul-de-sac of the Douglas up to the uterosacral ligaments. The sac is then ligated, amputated and the uterosacral ligament tied with interrupted silk sutures as close to the rectum as possible. The vaginal incision is then closed in the usual manner and high perineorrhaphy completes the operation. I believe Doctor McCarty's paper is timely in emphasizing the importance of diagnosis and proper surgical treatment of a condition which is frequently overlooked, and which is probably the prime factor in poor results, and recurrence of herniation and prolapse in these cases.

MENTAL HYGIENE VIEWPOINTS ON SOME COMMON PEDIATRIC PROBLEMS*

By Forrest N. Anderson, M.D.
Los Angeles

Discussion *by George B. Kryder, M. D., Glendale; E. Earl Moody, M. D., Los Angeles; Ernst Wolff, M. D., San Francisco.*

At the outset of this discussion I shall try to define my position. Under the general heading of psychiatry there are two rather widely different concepts. Unless we understand by the context which of the concepts is meant, we are left in confusion. I refer, first, to the concept of psychiatry as a definite technique—in a rough way approximating the techniques of surgery, obstetrics, or any other medical specialty. To try to disarm your criticism, I admit immediately that my specialty is less tangible in its techniques than are these others, but I am going to assume your agreement to the general idea that psychiatry does have a technique.

The other concept of psychiatry is in its attitude sense, such as may be implied in the expression, "He has a good psychiatric viewpoint." It is this concept upon which I am dwelling today. It is the meaning and value of psychiatry that is worth while to other physicians, and more especially to pediatricians. It is a something that is not, by any means, the sole possession of the psychiatrist; nor is it his contribution alone to medical and educational approach and philosophy. As I see it, the psychiatrist is entitled to call this his province and his contribution mainly because he has made of it an object of thoughtful and prolonged consideration. He has, in a sense, endeavored to codify and extend the principles, all the while admitting the integral contribution of the pediatrician, the physiologist, the educator, the social worker, and others. I trust I make clear my meaning.

ATTITUDE OF MENTAL HYGIENE PSYCHIATRY

Now what is this attitude of mental hygiene psychiatry, and on what is it founded? We have evolved in our philosophy to the place that we realize that, to most questions, we do not have specific answers. We have learned that neither medicine nor any other technique can, except in a relatively few instances, materially alter the phenomena of life. We have learned that man as a time-space binding organism is a temporary focalization of forces almost cosmic in intensity, and that what we mainly may do is to ascertain principles and methods of these forces in action. Then, perhaps, we may push our patient just a little more in line with the main channel of these processes. In other words, we study not to alter nature, but to know, and put ourselves in harmony with her.

We have come to realize that the child is not separable into components of body, emotion, and intellect. These are still helpful pigeonholings, so long as we always bear in mind that what we are dealing with is not a divisible organism but a unit-functioning one. As cases passing by us and

* Read before the Pediatric Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.

through our hands, we see school conduct improved by physical treatment, and bodily health improved by parental attitudes. As we have this kind of experience we begin to grasp, in a practical way, what is meant by this concept that the individual is forever indivisible and unanalyzable into separately acting components.

PHYSIOLOGICAL BASIS

As we turn attention to the present-day development of knowledge of the basal ganglia region of the brain—the hypothalamic and pituitary areas—and their importance to visceral and emotional aspects of the child, I think we are seeing more clearly that we already have a fairly secure physiological basis for our contention that when we treat the psyche or the body, we are treating the whole organism. You pediatricians know what encephalitis has shown us concerning the organic substrata of emotion. You know that injury of an apparently nongross character seems sometimes to produce personality changes. We, in psychiatry, are coming more to believe that long-continued exposure to attitudes and management may induce changes in this area that are as essentially organic as are those occurring in disease or in trauma. Less dramatic, I admit, but probably equally important. The spoiled child may be as truly conditioned, in an organic sense, by his experiences as is the obviously sick child. Likewise, the well-trained youngster has his experience incorporated into the neuron pattern of his deeper brain layers, and depends on this for his continuity of acceptable behavior. As I like to express it, we have probably sufficient evidence of the importance of this zone to have us accept the viewpoint that the physiology and psychology of a child are essentially indistinguishable.

SOMATOPSYCHIC DEVELOPMENT OF THE CHILD

So much for the underlying philosophy. Now for consideration of the somatopsychic development of the child, to see wherein we may find helpful viewpoints in that great intermediate zone where pediatrics as a technique, and psychiatry as a technique, merge their experiences through a common viewpoint or attitude.

The child at birth we view as an organism operating on an instinctual or emotional basis. Reason, knowledge, and consciousness are to all intents and purposes nonexistent. He responds on a feeling level. He lives his experiences on that level. He learns to *feel* his parents, and his more immediate physical and personal environment. He eats, sleeps, and fondles on a basis of satisfaction or physiological feeling. He initiates reactions that we all consider normal. Some of these will later bring him into conflict with his environment. Such are reactions of bladder-emptying, finger-sucking, ways of eating, response to person and control, etc. He lays the ground plan of his most important daily activities. I repeat, we all recognize this as normal. It is the response in manifold ways of an unthinking psychobiologically healthy organism.

INTERFERENCE ELEMENTS

Within a short time we, in the person of parent, nurse, or physician, lay interfering hands on these heretofore smoothly functioning processes. We *act* our interference by demand, by prohibition, and by attempted authority. In the sense of our greater knowledge of the child's necessary later social adaptations, no serious arguments can be urged against what we do. But the child does not have this forevision that we do. We have no way to tell him effectively. In the main, we actually do our training at a level that he does not knowingly understand, but that he does apparently feelingly grasp. We deal with him by gesture, manner, tone, affection, threat. All of these are counters in the language of feeling that has value to him from the day of his birth. To a surprising degree we influence him. So much is this the fact that we now believe that we have learned that training or discipline must be on that level on which it is naturally effective. To point out to a youthful thumbsucker that he may be jeopardizing his facial symmetry and his mouth-functioning, is likely to be without habit-changing effect. The repetitious pointing out of this fact—commonly called common sense by the parent, and nagging by the child—usually accomplishes little. Often it intensifies the habit. The same seems to be true of physical prohibitions by force. I hasten to assure you that I am not one who opposes the decision by the parent or the physician to overcome a habit in a child or to fight it out until both parties are willing to call it a draw. But I do think the decision should be made after careful consideration of the pros and cons—of the likelihood of its effectiveness, of the antagonisms that may be aroused, of the motivations toward habit continuance that may be stimulated. If, after this, the guardian feels that he must make an issue, that is his right. It will sometimes happen that his very sureness of carefully deliberated and determined decision will carry conviction to the child and solve the problem. But I do deprecate the traditional giving of advice to stop habits, without realizations of the deeper-lying processes with which we are dealing.

TROUBLESOME CHILDHOOD HABITS

This viewpoint applies to all these troublesome childhood habits—enuresis, masturbation, eating, sleeping, tantrums, etc. They are reactions in themselves not abnormal. They are not diseases. They involve a physiopsychological response in a growing organism to feeling stimuli. This means they are not superimposed somethings that can be shed by an effort of knowledge or even of the will. They are expressions, undesirable to be sure, of the total child which is as much a part of him as his ways of reacting to parents, to school, or to friends. To change them means motivating the child. If we can strategically modify the situation to help motivate him to these habit alterations, he will often change his habits. It will sometimes happen that we can use pituitary or thyroid substances for enuresis, or thumb guards for sucking propensities, but these become meaningful adjuncts or methods utilized on a sound basis of motivation within the child. To our way of thinking, this is far apart from the use of medicine or appliance as a treatment *per se* of a disease. It is analogous to our present realization that reading is a tool of life and not a thing in itself to be learned as a separate

task, as was the case in the childhoods of so many of us. We today think reading is quite as important as did our fathers, but we have evolved to a philosophy that looks upon its place in the educational scheme as really quite different from theirs. As we have done this, not only has methodology changed somewhat, but I believe our children have imperceptibly imbibed a newer viewpoint toward it.

COMMENT

Now this is not concrete. I do not mean it to be. I find myself often remembering that I have less sympathy with concrete solutions of problems than I formerly had. This may be a defense reaction. Naturally, I believe it is because I see medicine and education in a light more meaningful and more philosophical than when I thought in terms of specifics. To me the meaningfulness of childhood and adult reactions is a more worth while study than is empiric prescription. I realize that parents frequently want specifics. I have tried to conquer the urge of trying to give specific answers. I am convinced that the old course is charged with more dynamite than the slower process of attempting to see what the purposefulness of the symptom may be. We advanced in the treatment of fever when we came to realize that there was often a beneficent reaction—painful as a symptom, but meaningful as to what was going on. We seldom treat fevers as such any more. Thus, in mental hygiene psychiatry, thumbsucking and bad eating habits are essentially on the same level as is fever. We are not always able to find specific causes of either the one or the other. But at least we have the orientation of looking beyond the symptom, and even if we are compelled to treat it as a symptom, still we no longer regard it as a disease.

IN CONCLUSION

In this and many kindred ways pediatrics and psychiatry are merging their efforts, and who can say for certain any longer where the dividing boundary is? I think that we in psychiatry should know much more of the accepted field of pediatrics, just as we should of endocrinology and other related areas of knowledge. But we cannot know all this. We have to acknowledge the specialized fields of medicine. We can assist in the construction of a platform where all of us may meet. This platform is one of viewing the body, the mind, and the environment as one—mutually interacting aspects of a continuously growing, changing unity. Onto this platform the psychiatrist need not carry his jargon of orthodox tradition. He ceases being concerned primarily with the abnormal. Nor need the pediatrician carry all of his techniques there either. The two may meet in consideration of the growth problems of the child. They can meet with still others, for there is a common denominator, an attitude of seeking the meaningfulness of behavior, and of relating this to the total functioning of the child.

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DISCUSSION

George B. Kryder, M. D. (Professional Building, Glendale).—Pediatricians are becoming more and more conscious of the need of more closely combining the psychological with the physical care of children.

A few years ago Dr. Joseph Brennemann wrote a paper with the ominous title, "The Menace of Psychiatry," in which he contends that the obvious solution to the state of confusion of theory and authority, produced by the various schools of psychiatry, would be the advent of the "pediatric psychiatrist or the psychiatric pediatrician."

Since then, the development of mental hygiene psychiatry has more or less overshadowed the various schools of thinking by viewing the child as an indivisible unit, rather than considering it as a separate unit of mind and matter.

This viewpoint is looked upon with favor from the pediatrician, inasmuch as it is workable and permits him to use it in his everyday practice.

However, we cannot expect to learn all about the subject, but the popularity of mental hygiene psychiatry is a direct challenge for us to search further into this subject, as an aid in the prevention and relief of personality disorders.

Pediatricians have the privilege of constant observation and supervision of babies and children in their formative years. Too often we take for granted the child who does not register in our minds as a "problem child." We should realize that nearly every child is a candidate for a personality disorder, if it were motivated by the wrong kind of environment, and that the earlier we can establish patterns of psychologic wholesomeness, the better the chance of the child developing into an individual who can adjust himself easily to the world about him.

Mothers should be taught, early in the child's life, the evils of improper management, and particularly advised during the period of domestic socialization. It is during this period, when habit training is most effective; when negativism is to be combated and when the rights of others are to be realized. It is then that the attitude and conduct of the child can be developed along normal natural lines, or hindered by unwise parental management.

Pediatricians can learn much from the systematic manner of approach to behavior problems which the guidance clinics have given us. More painstaking devotion to details of family, home and school environment will more often give us an insight into the motivating factor in personality disorders.

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E. Earl Moody, M. D. (3780 Wilshire Boulevard, Los Angeles).—The statement of Doctor Anderson, that the physiology and the psychology of a child are essentially indistinguishable, and that behavior patterns are conditioned, in the organic sense, in the deeper layers of the brain, is startling. Yet, we who observe children grow and develop their behavior through their early years, must certainly realize that this is so. I believe firmly that the personality pattern is going to be rather a fixed thing after a few short years of the child's life. What an opportunity we pediatricians have in shaping this pattern of our little patients!

I like to tell parents that we cannot do much about the heredity of the child, once it is here, nor can we change its intelligence. We can, however, do a great deal in shaping the environment, so that the various stimuli coming from this environment and playing upon the child shall awaken the proper responses. I believe that a few basic emotions born with the child, a few instincts which are of relatively little importance, and the intelligence make the pablum that is to be shaped by its environment into a creature of habit. Should we not see that these responses are good, instead of bad?

How relatively simple it is with the average parent, whose whole life is wrapped up in the child, to direct his attitudes so that the child becomes conditioned in a good way. Certainly, if we accept this viewpoint, it is just as easy to develop a good habit in the receptive child as to develop a bad habit. The mechanism of development of good and of bad habits is the same. Thus, if good habits are developed and the child is taught to make his social adjustments, day by day, with good habits of action, we need not fear the child's ability to handle the complex problems of life as he advances to adolescence and adultness.

I believe that we pediatricians do not take enough time with the young parent during the early weeks of the child's life to discuss these problems. I consider the first few weeks of a child's life to be the most important of all childhood. Here the personality-pattern is started. During this period the pediatrician should spend much time getting the parents to "view the body, the mind, and the environment as one";

the forces that will shape the child's whole existence. I admit that often one feels that efforts are useless, for one is so frequently confronted with parents whose personality, patterns, and habits of action are such as to render them unfit for parenthood. Fortunately, these are few. The average parent, in my experience, is ready and willing to accept this viewpoint, and makes a coöperative assistant in our efforts to shape the behavior and adjustments of the child.

Ernst Wolff, M. D. (450 Sutter Street, San Francisco).—Doctor Anderson's paper, in its simplicity and breadth, is an admirable exposé of dynamic psychology as it applies to pediatric problems. Even more than new knowledge, its practical application demands new attitudes. For pediatricians must acquire not only an objective familiarity with psychological factors pertaining to the child in its setting, but, more important, he must vitalize this knowledge through his own development, and through his self-understanding. Only through self-development can he exercise such influence over parent and child that whatever helpful advice he may give is actually put into effect, and the contact with him as a personality will in itself be a maturing experience for parent and child.

The organization of pediatric work needs to be built up so that there is an integration of mental hygiene concepts into the field of prevention and treatment. This means a combined psychobiologic approach to prenatal, well-baby, and preschool clinics, and into the pediatric wards. In the same way diagnosis and treatment of childhood diseases should be based on the consideration of functional and organic factors simultaneously.

Thus the scope of pediatrics will be extended, and the pediatrician will come in an advisory capacity into the field of progressive education.

ACUTE IRITIS: ITS TREATMENT*

By Frank H. Rodin, M.D.
San Francisco

Discussion *by George H. Kress, M. D., Los Angeles; Samuel A. Durr, M. D., San Diego; Alfred R. Robbins, M. D., Los Angeles.*

LEAVING out of consideration trauma to the eye and foreign bodies in the eyes, the only eye conditions which demand emergency treatment are acute glaucoma, conjunctivitis due to the gonococcus, serpiginous corneal ulcers, and acute iritis. Delayed and improper treatment of acute iritis may be disastrous to the eye.

THE IRIS

The iris is a disc-like membrane perforated in its center by the pupil and attached by its distal border to the ciliary body. The iris lies on the lens. When stimulated by light the pupil contracts. This reaction is most active in young people, and not so active in older individuals. There are certain conditions where the pupil does not react to light, such as: Argyll Robertson pupil, atrophy of the iris, acute glaucoma, and acute iritis. When the iris is seen in good light, or, still better, with a magnifying glass, delicate markings are seen on its anterior surface, which are made up by the blood vessels lying in the stroma of the iris.

IRITIS AND IRIDOCYCLITIS

Iridocyclitis is an inflammation of the iris and the ciliary body. Fuchs[1] states: "Unmixed inflammation of the iris (iritis) is rare; in most cases we have to do with a combination of the two (iridocyclitis)." In this article it will be considered as iritis.

Table 1.—*Differential Diagnosis Between Ciliary and Conjunctival Injection (Table After May)*

Ciliary Injection (Deep)	Conjunctival Injection (Superficial)
1. Derived from the anterior ciliary vessels.	Derived from the posterior conjunctival vessels.
2. Accompanies iridocyclitis, deep inflammations of the cornea, and may accompany severe conjunctival inflammations.	Accompanies conjunctivitis.
3. Lacrimation, but no discharge.	Lacrimation and some discharge.
4. Consists of hyperemia of episcleral network of capillaries and veins.	Composed of a network of superficial tortuous vessels, which are easily recognized.
5. Cannot be displaced with the movements of the conjunctiva.	Can be moved with the conjunctiva by pressure of the lower eyelid.
6. Most marked around the cornea (circumcorneal injection), and diminishes toward the retrotarsal fold.	Injection diminishes from the retrotarsal fold toward the cornea.
7. Pink, violet-red color.	Bright, brick-red color.
8. Epinephrin has very little effect on the ciliary injection.	Epinephrin causes blanching of the conjunctival injection.

SYMPTOMS OF IRITIS

The symptoms vary. The eye may be very painful, or the pain may not be very prominent. Photophobia and lacrimation are usually present. The vision may be impaired. The usual signs are: some edema of the margins of the eyelids, especially the upper eyelid; ciliary injection, sometimes intense injection of the whole eye. The eye is tender. The iris is swollen, and the fine markings so well seen in the normal eye are not so distinct and may even be obliterated. The color of the iris may be changed by the invasion of exudate and blood. The pupil becomes small and does not react to light, or reacts to light poorly. There may be posterior synechiae. Hypopyon may be present, and fine precipitates are thrown out on the posterior surface of the cornea. The picture varies with the intensity of the infection and the general condition of the patient.

The sequelae are: posterior synechiae, seclusion or occlusion of the pupil, atrophy of the iris, plastic exudates in the vitreous, secondary glaucoma, and secondary cataract.

DIFFERENTIAL DIAGNOSIS

Acute iritis has to be differentiated from acute catarrhal conjunctivitis and acute glaucoma. In differentiating acute iritis from acute catarrhal conjunctivitis, the type of injection of the eyeball is of great importance. Since the bulbar conjunctiva is supplied by vessels from two sources we have to consider the two types of injections: conjunctival injection and ciliary injection. Table 1 describes the two forms. In its pure form, where

* From the Department of Ophthalmology, Mount Zion Hospital.

Read before the Eye, Ear, Nose, and Throat Section of the California Medical Association at the sixty-fifth annual session, Coronado, May 25-28, 1936.

TABLE 2.—*Differential Diagnosis of Acute Iritis from Acute Catarrhal Conjunctivitis and Acute Glaucoma. (Table After May)*

Acute Iritis	Acute Catarrhal Conjunctivitis	Acute Glaucoma
1. Pain: Pain in eye radiating to temples, worse at night.	No pain. A feeling of discomfort.	Severe pain in the eye.
2. Tenderness: Eye tender.	No tenderness.	Eye tender.
3. Lacrimation and Discharge: Lacrimation only.	Lacrimation and discharge.	Lacrimation.
4. Photophobia: Marked.	None or very little.	Marked.
5. Vision: Dimness of vision.	No effect on vision.	Marked loss of vision.
6. Injection of eyeball: Ciliary injection.	Conjunctival injection.	Marked congestion of eyeball.
7. Cornea: Cornea transparent. Deposits on back of cornea may be present.	Cornea not affected.	Cornea steamy.
8. Anterior Chamber: Normal depth. Hypopyon may be present.	Normal.	Shallow. Aqueous turbid.
9. Iris: Swollen, dull and discolored.	Normal.	Congested and discolored.
10. Pupil: Small, sluggish, irregular soon after the use of atropin.	Normal.	Dilated, does not react to light.
11. Tension: Normal. Occasionally elevated.	Normal.	Elevated.
12. Slit-lamp Examination: Anterior chamber full of cells.	Cornea, iris and aqueous normal.	Dense bedewing of the cornea, which masks the aqueous and prevents the estimation of the aqueous flare.

it is not associated with conjunctival injection, ciliary injection occurs in inflammations of the iris, ciliary body, and severe inflammations of the cornea. Although ciliary injection may be present in a severe conjunctivitis, its presence, however, should always lead one to do a careful examination of the iris and the cornea. In doubtful cases, instillation of homatropin, 2 per cent, once or twice, will help to make the diagnosis. In acute catarrhal conjunctivitis, uniform and gradual dilatation of the pupil will be obtained.

Acute iritis has also to be differentiated from acute glaucoma. Table 2 gives differential points by which it may be distinguished from acute glaucoma and acute catarrhal conjunctivitis.

TREATMENT OF IRITIS

Acute iritis is an emergency, in the sense that it calls for immediate treatment. No case of iritis may be considered under control unless all synechiae are broken down and the pupil is widely dilated. The greater the delay in getting the pupil dilated, the greater are the possibilities of complications. With the dilatation of the pupil the hyperemia of the iris is lessened, the inflamed organ is placed at rest, and photophobia and lacrimation subside. There is a gradual diminution of pain and discomfort, and the patient's condition begins to improve. Once the pupil is dilated, and kept dilated, one may look forward to a cure of the iritis.

The "sheet-anchor" of the treatment is atropin. As atropin is chiefly absorbed through the cornea, it is best to instil the solution with the patient lying down, or with his head tilted backward, keeping the eyelids open, so that the cornea is flooded by the atropin.

As soon as the diagnosis of iritis is made, atropin, 4 per cent, is instilled in the conjunctival sac. One drop should be instilled every fifteen minutes, three or four times. By that time dilatation of the pupil should begin, and in early cases excellent dilatation is quickly obtained. Atropin, 1 per cent, is prescribed, one drop to be instilled every four hours. Hot compresses should be used, applying the compresses for twenty minutes, every two or three hours.

The patient should be seen on the following day. If good dilatation has been obtained and the patient is comfortable, no other treatment is indicated. The instillation of atropin should be continued by the patient until the injection has totally subsided and the eye is free of hyperemia for about a week. The atropin may then be discontinued. If in spite of the use of atropin no dilatation, or very little, has been obtained in twenty-four hours, epinephrin bitartrate, 2 per cent, should be instilled. As the drug is not very stable, fresh solutions are recommended to be obtained in small quantities. Instillations of epinephrin bitartrate is occasionally painful in acute iritis, and the eye should, therefore, be first anesthetized. One drop of the solution is instilled every fifteen minutes for about four times. If no improvement has been observed, a subconjunctival injection of atropin and epinephrin is recom-

mended.[2] The solution consists of one part of 2 per cent atropin and two parts of epinephrin, 1:1000. The solution may be put up in one cubic centimeter ampoules, ready for use. The eyeball is well anesthetized and about half of one cubic centimeter of the solution is injected subconjunctivally, just around the limbus, partly above and partly below. The injection is very effective: dilatation may begin as soon as the injection is completed.

Of great importance in the treatment of acute iritis is the use of the salicylates. One grain per pound of body weight daily has been recommended by H. Gifford.[3] The amount and the necessity for the use of the salicylates depend on the severity of the iritis and the patient's symptoms.

S. R. Gifford [4] recommends the following prescription:

Sodium salicylate	℥ i
Simple elixir	℥ iss
Aqua q. s. ad.	℥ iv

of which two drams are taken four to six times a day.

NONSPECIFIC PROTEIN THERAPY

Of the nonspecific foreign protein therapy, typhoid-paratyphoid vaccines and whole milk are the important ones. The usual reactions to these are fever, chill, and leukocytosis, with a predominance of the mononuclear cells. The most effective one is the typhoid-paratyphoid. It is best to start with 25 million organisms, given intravenously. As a rule, one injection is sufficient. A marked improvement of the signs and symptoms is obtained in twenty-four hours. Synechiae, which have resisted separation, may be broken down. The injection of the eyeball, the pain and the photophobia, usually show a marked improvement. The injection may be repeated, if necessary, in two days, and the dosage increased to 50 millions. If later injections are indicated, they may be increased to 60 or 70 millions, depending on the resultant reactions.

The advantages of milk injections are that it is easily obtained and that the reactions are not so severe. Certified and pasteurized milk have a low count of bacteria. In order to obtain benefit from milk injections, it is necessary to have milk of a high bacterial count. This can be secured as follows: A bottle of either certified or pasteurized milk is placed near a warm radiator for six to twelve hours. The milk is then boiled for three minutes and allowed to cool to body temperature. This boiling time is long enough to destroy the bacterial contamination and not long enough to inactivate whatever might be the active components contained in the milk. The injection is made deeply in the fleshy part of the buttocks with a 2½-inch needle, under the usual aseptic precautions, and from 10 to 15 cubic centimeters are injected. The treatment may be repeated in forty-eight hours and again in forty-eight hours. A chill is rarely obtained. The patient often perspires and has the sensation of being warm. The temperature and the leukocytosis are not as marked as in typhoid-paratyphoid vaccines injections.[5]

ACUTE IRITIS WITH ELEVATION OF INTRA-OCULAR TENSION

As a rule the intra-ocular tension of an eye with acute iritis is low. Occasionally the tension is increased.

The differential diagnosis between acute iritis, with elevation of intra-ocular tension and acute glaucoma, is often baffling. In such a case it is best to use first instillations of epinephrin, 1:1000, or suprarenin bitartrate, 2 per cent. The epinephrin may also be applied by moistening a cotton wick with the solution and placing it under the upper eyelid, so that it may be in contact with the eyeball. If no dilatation is obtained, cocain, 4 per cent, and euphthalmin, 2 to 4 per cent, should be instilled. If the pupils still remain undilated, homatropin, 2 per cent, should be instilled. If under homatropin the pupil does not dilate, or dilates sluggishly, imperfectly or unevenly, the diagnosis of iritis is confirmed.

As soon as the diagnosis of acute iritis is made, even if the intra-ocular tension is elevated, atropin, 4 per cent, should be instilled. In most of the cases, as soon as the pupil is dilated, the tension returns to normal, and there is an improvement in all the signs and symptoms. If the instillations of atropin cause an increase in the intra-ocular tension, a subconjunctival injection of 6 minims of epinephrin, 1:1000, is advisable. When the tension is reduced, instillations of atropin should be continued and followed by subconjunctival injections of atropin and epinephrin, if necessary.

In the rare cases of acute iritis with elevation of the intra-ocular tension, which cannot be controlled by an injection of epinephrin, and in which the use of atropin has the tendency to increase the tension, we are, as Elliot states, "between Scylla and Charybdis." Such cases should receive that treatment which will give hope of the best result. A paracentesis is often of great benefit; the paracentesis may be repeated if necessary. Surgical interference for the intra-ocular tension may be necessary if the use of atropin increases instead of decreases the intra-ocular tension and the acuteness of the symptoms present, and other drugs fail to keep the pupil dilated.

RECURRENCES OF ACUTE IRITIS

Iritis has a tendency to recur. Usually the recurrence is not as severe as the primary inflammation. However, if frequently repeated, and as they leave fresh exudate after each inflammation, serious sequelae may result, such as seclusion or occlusion of the pupil. An iridectomy performed during the period of quiescence will as a rule stop the recurrences.

Whenever it is indicated, a search for the focus of the infection and for the constitutional condition which may be responsible for the acute iritis should be made.

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DISCUSSION

George H. Kress, M. D. (945 Roosevelt Building, Los Angeles).—Acute iritis will always be a subject of interest, because of the serious damage that can accrue to the eye tissues and functions if proper treatment is not used.

Doctor Rodin has stressed the fact that acute iritis is an emergency disease rather than one in which time can be taken to try this or that alternative therapy. In acute iritis vigorous use of atropin, depending on the stage and intensity of the inflammation, is the first order of the day. Instillation first, with varying dosage as may be indicated, followed by subconjunctival injection, as with epinephren, if hard bound adhesions are present. In severe cases, treatment with the foreign proteins is often given. The value of the salicylates has been well established.

The diagnosis is not always as easy as the classical tables of the textbooks, with vertical columns for iritis, glaucoma and acute conjunctivitis, would indicate. In such cases, cautious but prompt procedures must be instituted to establish the diagnosis along lines indicated by Doctor Rodin. With the above, from the very beginning, a search for the causal factors of the iritic inflammation should be made; and either then or later, according to circumstances, an attempt at elimination of these etiologic factors should be carried out.

Samuel A. Durr, M. D. (1006 Medico-Dental Building, San Diego).—Shortly after the speaker's original paper appeared, on the injection of atropin and adrenalin subconjunctivally, I had my only personal experience with this method. The patient was a one-eyed man, aged sixty-five, apparently in good general condition. It was impossible to dilate the pupil by any conservative method, since the patient was seen for the first time, several days after the onset. Fortunately, he was hospitalized. Before the suggested injection was completed, the patient became unconscious, his pulse climbed to 160, his skin was pale and clammy, covered with perspiration as was no doubt my own. The conjunctiva was immediately incised liberally, over the site of the injection, and he was given morphin. I must say that the pupil dilated beautifully, and that he made a perfect recovery. Since then, I have always relied upon instillations of laevo-glaukosan in similar cases, with no untoward results. Horner's report on suprarenin bitartrate, with its rather high percentage of increased intra-ocular tension, caused me to view it with suspicion.

Alfred R. Robbins, M. D. (1930 Wilshire Boulevard, Los Angeles).—Doctor Rodin has clearly pointed out in his paper the type of treatment that a patient with acute iritis has the right to expect from the attending physician:

1. The diagnosis is essential.
2. The treatment must be instituted.
3. The etiological factor must be sought for and corrected.

Treatment is comprised of local and systemic:

A. Local includes—
(*a*) Mydriasis
(*b*) Heat (wet or dry)
(*c*) Counter-irritation (Dionin)
(*d*) Bleeding (leeches)

B. Systemic includes—
(*a*) Specific
(*b*) Nonspecific
(*c*) Removal of foci
(*d*) Bed rest
(*e*) Hyperpyrexia or thermic.

The diagnosis is the basis for any treatment and an uninjured inflamed eye, especially one with little or no discharge, must be considered glaucomatous or iritic until proven otherwise.

Iritic emergency treatment uses atropin, which Doctor Rodin calls the sheet anchor, as the basis of therapy. Mydriasis is essential, and the subconjunctival injection of atropin and epinephrin, as sponsored by Doctor Rodin, is of immense value.

There has been an advance in this treatment since McKenzie's textbook of 1833 advised the rubbing of belladona unguentum into the skin, to the present-day subconjunctival injections of its alkaloid.

The etiology must be established if possible, and a careful physical examination is imperative, as the emergency treatment is only the beginning of the treatment of acute iritis.

Lues, being listed as the cause in 30 per cent to 50 per cent of iritis cases, must be considered first, then Neisserian infection, tuberculosis, and the so-called rheumatic type, with the search for foci done. If diseased sinuses, tonsils, teeth, prostate, etc., are found, they must be treated immediately and surgically corrected if necessary. We all know the startling cures that have been reported after foci removal.

We feel surgical correction should not be delayed, and that the additional disturbance which might result, is rarely harmful, but instead improves the prognosis.

Local treatment may be augmented by leeches for subjective relief at least.

Rest in bed is as important as iris rest, and should be enforced in the acute stage.

Catharsis is desirable, and calomel with saline is still good treatment.

The various alternatives, including salicylates, mercury, iodin, or the arsenicals, can be tried as indicated.

The hyperpyrexia type of treatment, as given by Doctor Rodin, has been developed and extensively used for a variety of inflammatory conditions, including iritis. The endogenous type using foreign proteins is especially valuable. Care must be used, however, in taking the history and in the small dose tests before using shock-therapy, as deaths have occurred. Gifford's two afebrile days before repeating injections is desirable.

The exogenous hyperthermic therapy, using electrical current or baking cabinets, is newer. This requires special equipment and must be thoroughly tested before being used indiscriminately. It is probably superfluous to add that, in addition to the treatment of the immediate attack, we will be remiss in our duty unless we attempt to ascertain and treat the causative factors, and thus prevent the destructive recurrences of the disease.

RELAPSING FEVER: COMMENTS ON ITS INCIDENCE IN NEVADA

By Frank C. Reynolds, M.D.
Chico

Discussion *by James T. Vance, M. D., Sacramento; Lawrence Parsons, M. D., Reno, Nevada.*

RELAPSING fever was probably first recognized by Hippocrates when he described "bilious remittent malarial fever."[1] However, no further observations were reported until 1744, when Rutty[2] recorded the first epidemic in Ireland. Since this time it has appeared on every continent on the globe except Australia.

IN FOREIGN COUNTRIES

The disease prevailed in Scotland and Ireland during the years 1799-1800, 1817-1819, 1826-1827, and in 1842-1848; the later year included an invasion of the larger cities of England. In 1868-1870, it again appeared in England and Scotland, and cases continued to occur until 1873. Oftentimes it was confused with other forms of fever, and was nearly always associated with circumstances of privation or crowding.

The first accounts coming from Russia were: Odessa in 1833, and from Moscow in 1840-1841. In the autumn of 1863 the disease reappeared in Odessa, spreading to Livonia and Finland in 1865, to Siberia in 1866, and to Poland in 1868. The disease then continued to prevail over extensive areas of Russia until 1878-1879.[1] Since then we have little data, but large infected areas remained, as the alarming number of 1,570,604 cases were reported in 1920.[3]

In Germany a severe epidemic in 1868 resulted from the importation of Russian troops. A second restricted epidemic occurred in 1871-1872, and a third in 1878-1879. Cases have been reported from Italy and Spain, but thus far France and Switzerland have not been affected. Obermeier in 1873 published his observations on the causative spirochete, which he found in the German epidemic of 1868.[4]

The disease has, no doubt, been present in India for many years, but the differential diagnosis between this and the long-continued specific fevers was not clearly made by the early observers. Nothing definite was learned, however, until 1878, when Vandyke Carter described the spirillum which he found in the blood of infected relapsing fever patients.[4] He demonstrated that the clinical course and causative organisms of the relapsing fever there was identical to that found in Europe. The mortality in India is reported to be 5 to 10 per cent. In Africa the disease ranks next to sleeping sickness. However, in America and Europe it is a mild disease. In general, the mortality varies greatly with the different epidemics from nil to as high as 80 per cent.

Up to the time that Livingston, in 1857,[5] reported a peculiar type of relapsing fever from South Africa, often following the bite of a tick, this was only considered to be a disease caused by filth. After this, tick fever was known to spread along the caravan routes from Africa to Asia. Dutton and Todd, in 1904, proved the spirochete of African relapsing fever to be transmitted by a tick. Sargent and Foley, in 1910, proved the European relapsing fever to be transmitted by a louse.

IN NORTH AMERICA

Until the nineteenth century the disease was unknown in North America. In 1844, fifteen cases were reported from Philadelphia, occurring in Irish emigrants. In 1848, a few cases arrived in New York, and in 1850-1851, Dr. Austin Flint saw a number of cases among recent emigrants from Ireland who were received at the Buffalo City Hospital, but no epidemic resulted from these importations. It was not until several years later, 1869-1870, that the disease became epidemic in certain parts of New York and Philadelphia. Parry and Pepper gave the following account relating to its extent and progress: "In Philadelphia, of 1,176 cases in which the date of occurrence is known, there occurred in September (1869), 4 cases; December, 6 cases; January (1870), 5 cases; February, 13 cases; March, 124 cases; April, 209 cases; May, 235 cases; June, 293 cases; July, 115 cases; August, 19 cases; September, 28 cases; October, 15 cases; November, 1 case; December, 2 cases; January (1871), 2 cases; February, 1 case; March, 2 cases; May, 7 cases; June, 2 cases; and October, 2 cases.[1]

IN WESTERN UNITED STATES AND CALIFORNIA

The first recorded epidemic in the western United States was reported by Dr. P. B. M. Miller at Oroville, California.[6] This prevailed during the months of August, September, and October, 1874, and it was estimated that there were several hundred cases among the Chinese laborers. No further mention of the disease was made in California until 1906, when two deaths were recorded in the nineteenth biennial report of the State Board of Health,[7] and in 1907 one death in the twentieth biennial report, although there was no comment as to the location of the laboratory diagnosis.[8]

On the Isthmus of Panama the disease was not recognized prior to 1905. Darling[9] reported that about thirty-one cases were diagnosed in the canal-zone hospitals between 1904 and 1909.

The first cases in native Americans, and confirmed by laboratory diagnosis, were reported in 1915 by Meader.[10] The source of the infection was in Bear Creek Canyon, Colorado. Waring[11] reported another case from this same focus two years later.

In 1921, Briggs gave an account of two patients who became infected at Polaris, California, near Lake Tahoe.[12] Since that time sixty-nine cases have been reported, sixty-six of which have occurred in four foci of the state: Lake Tahoe, Packer Lake, Strawberry Lake, and Big Bear Lake.

Cornick, in 1927, mentioned that relapsing fever was present in Texas,[13] along with a report of eight cases from the Oshman Laboratory in San Angela, Texas. This was followed by a review of four cases by Malcolm Graham in 1931.[14] These occurred in four boys about sixteen years of age who explored a cave in the Colorado River Valley. It is interesting to note that there had been several unreported cases in Llano County previously. In this region, a tick-infested cavern, called the "Blue Bug Cave," was known to cause a strange malady to those who entered it. The people had known this for at least ten years, and over forty cases had occurred from this one focus. On exploration, the sandy floor of the cave was found to be literally covered with ticks. Bannister reported the first cases from Phoenix, Arizona, in 1930.[15] Cases appear sporadically from Utah.

ETIOLOGY

The exciting cause of relapsing fever is a spirochete of the genus Borrelia, which produces a septicemia in man. The different species show no morphologic differences, but on the basis of serologic studies each differs sufficiently to separate them.[16] Borrelia recurrentis in England, Ireland, and other parts of Europe; Borrelia duttoni in Africa; Borrelia novyi in America; Borrelia berbera in Algeria, Tunis, and Tripoli; Borrelia carteri in India; Borrelia persicum in Persia; Borrelia venzuelense in South America; Borrelia

neotropicalis in Panama; and Borrelia histopanicum in Central Africa.

The length varies from 6 to 25 microns, and the width is about 3 microns. There are six to fifteen curves in the body. The organisms are quite actively motile and may be seen by darkfield examination. Division is by transverse fission.[17]

Smears of blood are stained with 20 per cent Giemsa stain for thirty minutes.

MODE OF TRANSMISSION

In Central and Eastern Africa, South America, and in the southwestern part of the United States, the disease is carried from the reservoir hosts by ticks of the genus Ornithodorus-venzuelensis, taljae, turicota, marocanus, thalozani, laharensis, and moubata. In Europe the louse of the genus Pedulus humani, var. corporis and capitis, is responsible for the spread.[18]

After the insect vector has bitten the infected animal, the organisms disappear from the alimentary tract. Six or seven days later, however, the organisms appear in the coelomic cavity, body fluids, and then in all of the body tissues. A tick, once infected, may transmit the disease through three generations; hence the egg, larval, nymphal and adult forms, are all infectious. From clinical histories, it appears that the adult tick is the least dangerous of these, as its presence on the skin of man is usually noticed and may be removed. However, nymphal forms may obtain a blood meal without causing any disturbance to man. This latter fact may account for the lack of knowledge of a previous insect bite. Feces is scratched into the wound from which the blood meal is taken.

The spirochete enters the peripheral blood of monkeys and certain rodents two or three days after their entrance into the tissues. They divide rapidly, and sometimes become more numerous than the red blood corpuscles. Following this stage, which lasts from several hours to several days, they disappear from the blood until another period of rapid multiplication occurs. Usually, after several attacks, antibodies which destroy the spirochetes develop in the host. The same may be said for the disease in man.[19]

Many animals have been found to be able to harbor the infection. The spirochete has been found in the following animals:[20,21] monkey, oppossum, armadillo, calf, horse, cat, chicken, dog, rat, chipmunk, ground squirrel, tamarack squirrel, etc.

The studies of Nicolle and Anderson[22] in Tunis indicate that the spirochete commenced as a parasite of small mammals, and that burrowing rodents serve as the reservoirs of the disease. Similar conclusions were formed by Clark, Dunn, and Benavides in Panama, and Graham reported that the same facts were probably true in Texas.

Spirochetes may pass through the placenta in small numbers without any pathologic changes occurring. Some investigators have found spirochetes in fetal mice. In the new-born, infection takes place during birth. The disease runs a very severe course if infection takes place during pregnancy, and the fetus is found to be immune. Depending on the severity of the epidemic, abortions are more or less frequent.

Muhlens, Grothusen, and others, have found that children and adults may act as carriers of relapsing fever. Spirochetes have been found to remain in the blood stream as long as ninety-eight days after finding the first positive smear. These patients were without symptoms.

AGE AND SEX INCIDENCE

The great predominance of the cases reported have occurred in males. This is undoubtedly due to their greater exposure. No age group has been found to be immune to the infection.

Most infections occur during the summer months of June, July, and August. This period corresponds with the time of appearance and disappearance of the rodents.

PATHOLOGY

Parenchymatous degeneration of the kidneys, heart, and liver has been found with a large, soft spleen which may rupture spontaneously. Not infrequently the organs are bile-stained. The skin is icteric in fatal cases, and there may be petechiae. At times the spleen may show infarction. The bone marrow is hyperemic, with great activity of the leukoblastic elements. The spirochetes have been found in all organs and tissues of the body. None of the changes noted have been characteristic to this particular disease.

SYMPTOMS AND SIGNS

After an incubation period, which varies from six to nine days, the patient becomes acutely ill. Sometimes there is a short prodromal period with malaise and moderate languor. The onset is abrupt, with high fever, chills, intense frontal headaches, and excruciating pains in the back, limbs, and joints. At this time there is usually nausea and vomiting, and there may be some epigastric pain. The fever rises rapidly to 104 or 105 degrees, usually lasting about three days, although these febrile periods may last from two to four days. During the day of onset the fever is high, the second day somewhat lower, and on the third day it begins with a sharp rise and ends by crisis. With this rapid drop of body temperature to normal, there is profuse sweating, and the patient feels quite normal in a few hours except for weakness. Both diarrhea and constipation have been reported.

Without treatment there are usually two to four attacks, but there may be more than ten. While not a strict rule, relapses after the onset are generally less severe.

The afebrile period shows an extreme degree of irregularity. In the moderately severe cases it lasts four to five days. In the severe cases the relapses may appear in two days, or the patient may have a symptom-free period lasting as long as ten days. During this time the patient feels quite well, except for some weakness, and it may be difficult to keep him in bed.

The rash is a very inconstant finding, and when it does occur it seldom lasts more than a day or two. This is of the macular type, appearing on

the trunk and extremities. There seems to be no correlation between the rash and the severity of the symptoms.

During the attack the face is flushed, and the skin is hot and dry with a very toxic appearance. There may be a mild conjunctivitis, and the tongue is usually coated. The mucous membrane of the mouth may show many tiny white papules. The liver may be slightly enlarged and quite tender. Splenic enlargement with tenderness is quite common. The spleen decreases in size between the attacks and becomes larger with each subsequent attack. Jaundice is uncommon. Bronchial findings are not infrequent, but these almost always disappear with the fever. There may be signs of pneumonia in the severely toxic cases. Abdominal distension with urinary retention occurs at times. Irritability and delirium occur at times. The pulse at the onset is 100 to 120, and is full and bounding, while toward the end it grows weaker. This is unlike typhoid in that the pulse is proportionate to the fever.

The white count may be normal or may exceed 15,000, although there is usually a predominance of polymorphonuclear leukocytes. A moderate lymphocytosis may precede the febrile period for two or three days.

The urine may show albumin and casts, but erythrocytes are a rarity.

The Wassermann test is positive in 20 to 50 per cent of these cases, but it becomes negative with the disappearance of the disease.

Sequelae.—Muscular asthenia of variable degree is quite common, and hemorrhagic nephritis, iritis, cranial nerve paralysis, meningitis, pneumonia, polyarthritis, and parotitis have been reported. Abortion has occurred in pregnant women.

TREATMENT

Most cases have been successfully treated by the administration of neoarsphenamin. The dose is the same as that given for antiluetic therapy. This is given during the period of rising temperature rather than during the symptom-free interval when the spirochetes are not predominantly in the blood stream. Usually one dose of sufficient size will affect a cure, but when inadequate amounts of the drug are given, relapses are more prone to occur, and the organisms become more resistant to therapy.

RELAPSING FEVER IN NEVADA

This disease probably has been endemic in the State of Nevada for many years. The first proved case was discovered in Smith Valley in 1930. Since that time there have been thirty known cases, although only ten or twelve have previously been reported. So far, four foci have been found in the State: Lake Tahoe, Gold Park, Smith Valley, and Tonopah.

Of these cases, sixteen have occurred in Smith Valley, six in Gold Park, seven from Lake Tahoe, and one from Tonopah.

This disease is gaining in importance in view of the fact that it is definitely on the increase. Whereas only one case was reported in 1930, eleven appeared in 1935, and four more have been recorded up to August, 1936.

It is evident that a history of tick bites is uncommon, as it appeared in only seven of the thirty cases. However, the region around Gold Park is an exception, as all of the infected patients gave a history of tick bites. In fact, the people in this region have been bitten so often that they paid little attention to tick bites until the occurrence of these cases. After the appearance of this epidemic in 1935, the natives said that there had previously been a similar malady affecting numerous persons fifteen years before, and that several deaths had resulted at that time. However, no other cases appeared during the intervening years, although the people frequently received tick bites from time to time. Thus, we find that the percentage of infected ticks is not great, and is quite contrary to previous findings reported, especially those from the Blue Bear Cave in Colorado, where all those entering the cave were infected.

No cases in which a rash appeared were noted. There was one death in this series: a child, age seven, who succumbed seven days after the first symptom.

The spleen was enlarged in about 50 per cent of the cases, and the liver was enlarged in about 25 per cent. As to constipation or diarrhea there is no constancy. In regard to complications, none appeared.

IN CONCLUSION

Relapsing fever is an ancient disease, being carried by a tick which transmits the spirochete from infected rodents to man. It has probably been endemic in the State of Nevada for many years. To date, four foci have been found. The increasing incidence of the disease is probably due to its better recognition.

Third and Salem streets.

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DISCUSSION

James T. Vance, M. D. (1127 Eleventh Street, Sacramento).—Doctor Reynold's paper is a most complete statistical report of a comparatively rare disease which may become epidemic under ideal circumstances. It must, therefore, be considered as a real public health problem.

The historical background is very interesting, giving us a panorama of the disease in a few short paragraphs, bringing us up to the present, and dumping the whole affair into our own back yard.

Relapsing fever has created little attention in California, except in the medical schools, because of its rarity. I saw only a prepared slide during four years in San Francisco, and in nine years of practice in Sacramento I was unaware of a single case having been reported from this area. It is quite possible that a diagnosis has occasionally been missed because of inadequate laboratory assistance, or a failure to consider relapsing fever in a differential of the acute fevers. The diagnosis rests with the laboratory, and this is another very good reason why the laboratories, which insist upon doing counting-chamber differential counts, should stop the practice and return to the stained-smear method. Dark-field examination should be done on suspected cases.

Immunologically speaking, it is interesting to note that the disease confers only a passive immunity, lasting from about forty days to six months, leaving the patient just as susceptible as he was before the original attack. This seems to be true of all the spirochetal diseases.

The blood of a relapsing-fever patient remains infectious for a considerable time after the disappearance of symptoms, and even after passage of the blood through a Berkfeld filter. It is, therefore, plain that some manner of public health regulation should be employed in convalescents and intimate contacts, as well as with the active case.

Lawrence Parsons, M. D. (St. Mary's Hospital, Reno, Nevada).—Papers calling attention to relapsing fever in California and Nevada, such as that which Doctor Reynolds, one of my former students, has prepared, are timely and interesting.

We see about half a dozen patients with relapsing fever here in Reno every summer, most of them having acquired their infection at Lake Tahoe during the vacation season. Alert physicians usually suspect the disease by its sudden onset with chills and fever in a previously well individual, and we easily confirm the diagnosis by finding the spirochetes in blood smears with Wright's stain, although sometimes quite a long and even a repeated search are necessary.

One man in Colfax, California, had a severe infection with marked jaundice, and only the blood smears showing numerous spirochetes made the diagnosis of his illness evident.

The tick vector is a very small, pale tick, Ornithodoros hermsi Wheeler, measuring about 5 x 3 millimeters in size. It does not bury itself in the skin like ordinary wood ticks, but drops off after feeding, and most of the patients we have seen had no recollection of having had a tick bite. It is parasitic upon the chipmunk.

An excellent bulletin (No. 61), on Relapsing Fever published by the California State Department of Public Health in 1936, is available to physicians and should be read.

PLASMA CELL MYELOMA AND HYPERPROTEINEMIA*

By I. C. Schumacher, M.D.
O. O. Williams, M.D.
and
G. S. Coltrin, M.D.
San Francisco

Discussion *by Alvin G. Foord, M.D., Pasadena; Harry A. Wyckoff, M.D., San Francisco.*

Reimann,[1] in 1932, called attention to the fact that autohemagglutination was frequently the result of hyperproteinemia, especially with an increase in the globulin and fibrinogen fractions. In a case diagnosed clinically as arthritis, the abnormal rouleaux formation in smears, and the difficulty encountered on attempting to type the patient's blood, led to plasma-protein studies and the finding of a hyperproteinemia. He suspected myeloma as a causative factor, and this diagnosis was later established. Since Reimann's report, other similar cases of myeloma, showing the interesting phenomenon of autohemagglutination associated with hyperproteinemia, have been recorded in the literature.

Foord[2] reviewed the reported cases of hyperproteinemia in multiple myeloma up to and including the year 1933. In the cases collected, the highest plasma protein encountered was 16 grams per 100 cubic centimeters of blood. Autohemagglutination was noted in only two of them. However, an additional case had an increased sedimentation rate, indicating a possible spontaneous clumping of the red blood cells. To this series he added four cases observed by himself, each of which had a hyperproteinemia with an associated autohemagglutination. The highest plasma protein encountered in Foord's cases was 15 grams per 100 cubic centimeters. Foord and Randall[3] later reported two additional cases showing both autohemagglutination and hyperproteinemia. The total blood proteins in these cases were 18.37 and 12.74 grams per 100 cubic centimeters of blood, respectively. He added at this time three cases from the literature in which the greatest protein encountered was 12.1 grams. Later Sweigert[4] reported a case with total protein estimations ranging from 12.8 to 13.5 grams.

Although increased plasma proteins and the accompanying manifestation of autohemagglutination may be found in conditions other than multiple myeloma, their presence should lead to careful x-ray studies of the bones to rule out this condition. Peters and Eisenman[5] state that increase in globulin is sometimes found in ulcerative tuberculosis, syphilis, and cirrhosis of the liver. However, they found the greatest increase in multiple myeloma and in generalized metastatic carcinoma to the bones. It has been stated that the frequency of hyperproteinemia in multiple myeloma cannot be determined until adequate chemical studies have been made in all cases. On

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Read before the Pathology and Bacteriology Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.

Fig. 1.—Clumping of the red blood cells in the dry smear

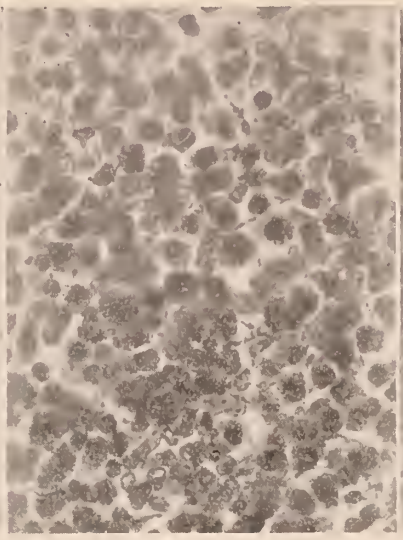

Fig. 2.—Section of femur marrow, showing type of cells present

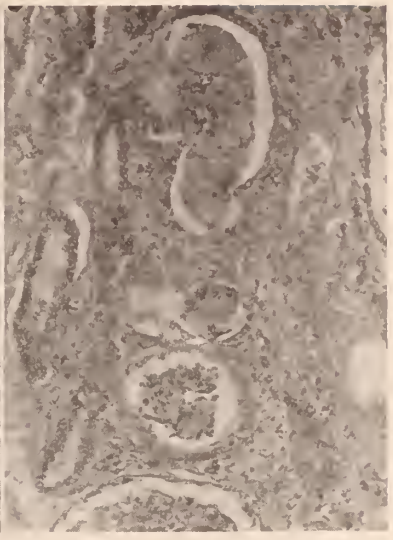

Fig. 3.—Protein deposits in the kidney

the other hand, it appears to be equally true that its diagnostic specificity cannot be estimated until adequate blood-protein studies have been undertaken in patients having a more or less generalized bone and bone-marrow disease.

The report of this case is justified not only because of the increasing interest in cases of multiple myeloma having increased globulin and fibrinogen, but also because of the unusually high total protein encountered. Of interest, too, is the diffuseness of the process in the bone marrow associated with only minor demonstrable changes grossly. Clinical diagnosis was suggested on the hematological and blood-protein changes alone. X-ray examination partially confirmed the diagnosis, and postmortem examination established it conclusively.

REPORT OF CASE

N. S., a 64-year-old white woman, entered the University of California Hospital November 15, 1936, in a semi-comatose condition. The history of her illness, given by the husband, was as follows: The patient had an acute illness of ten days' duration in February, 1936, which was characterized by high fever and mild delirium. She was not attended by a physician, but because of an existing epidemic the husband attributed the illness to influenza. The patient recovered sufficiently to attend to housework, but continued to feel weak. No weight loss was noted at that time. In April, 1936, she began to have nosebleeds and occasionally rectal and vaginal bleeding. The weakness continued, and loss of weight became noticeable. She was seen in September by the family physician, who diagnosed carcinoma of the bowel, and in October she was hospitalized for a period of ten days. While in the hospital, two transfusions were given for an existing anemia. This apparently checked the tendency to hemorrhage for a time. Three weeks following discharge from the hospital, the husband noticed that the patient appeared dreamy, refused to eat, and failed to respond to conversation. The condition increased in intensity until she became stuporous, in which condition she was admitted to the University Hospital.

The patient had always been healthy. Following the birth of her only child twenty years previously, she had had a prolapse of the uterus which had become progressively worse.

Physical Examination.—Physical examination revealed a stuporous elderly white woman, whose temperature was 37 degrees centigrade, pulse 100, and respiration 26. The skin was pale and dry, and showed no purpura or petechial hemorrhages. There was no icterus. Subcutaneous edema was present. The pupils were regular, equal, and reacted normally. Dried blood was present in both nares. The lips were dry and cracked, and the tongue was thick and coated. Moist râles were present at both bases. The heart was slightly enlarged to percussion. No murmurs were heard. The blood pressure was 90 millimeters of mercury systolic, and 80 diastolic. The liver edge was palpated three centimeters below the right costal margin. There was a complete prolapse of the uterus and bladder. The reflexes were hypoactive, and no abnormal reflexes were noted.

Examination of the urine on two occasions showed acid reactions and specific gravities of 1.010 and 1.026. The sediment was loaded with pus and red blood cells, but no casts were reported. Albumin was found present in large quantities, but Bence-Jones protein could not be demonstrated. On culture, the urine contained Bacillus proteus, Bacillus coli, and Streptococcus alpha.

The stool was positive for occult blood.

Blood Studies.—The hematological studies were as follows: The hemoglobin on two occasions varied from 6.6 grams to 5.6 grams (37 to 44 per cent), and the corresponding red blood counts were 1,720,000 and 1,920,000. With the latter estimation, the volume of packed cells was 14 cubic centimeters per 100 cubic centimeters of blood. Two white blood counts at the time of entrance were 12,400 per cubic millimeter, and 13,000 per cubic millimeter. The differentials on both occasions were practically identical, there being 72 per cent polymorphonuclear leukocytes, 23 per cent lymphocytes, 3 per cent monocytes, and 2 per cent eosinophils. Two days later a differential count showed 41 per cent polymorphonuclear leukocytes (filaments 22 per cent, nonfilaments 19 per cent, 56 per cent lymphocytes, and 3 per cent monocytes. The platelets numbered 63,000 per cubic millimeter.

In the stained smear the red cells showed marked tendency to rouleaux formation and agglutination. Moderate anisocytosis and polychromatophilia were present, and three normoblasts were found with each 100 leukocytes counted. No marked clumping of the red cells was noted in making red blood cell chamber counts. In view of the marked rouleaux formation and agglutination in the dry smears, it is possible that a similar manifestation was actually present in the counting chamber, and that the red cell counts were low to a corresponding degree. No abnormal tendency to bleeding was noted while obtaining blood for hematological studies. Whole blood obtained by venipuncture clotted promptly without sedimentation, but the clot did not contract at all, and great difficulty was experienced in obtaining even the smallest amount after centrifugation.

Marked autohemagglutination was observed during an attempt to type the patient's blood. The blood Wassermann was negative. Blood-chemical studies showed a nonprotein

nitrogen of 76 milligram per cent; creatinin, 2.3 milligram per cent; blood sugar, 118 milligram per cent; and plasma chlorids (as NaCl), 577 milligram per cent. The total plasma protein was 23.27 grams per 100 cubic centimeters, of which there was 1.63 grams per cent albumin, 16.02 grams per cent globulin, and 5.62 grams per cent of fibrinogen calculated as fibrin. The blood plasma contained a Bence-Jones-like protein when tested by the method described by Osgood.[6]

X-ray studies of pelvis, skull, and ribs were not satisfactory, because of the condition of the patient, but in the skull films there were a few mottled areas in the frontal bones near the vertex.

Course.—The course in the hospital was a progressive increase in coma, onset of deep, gasping breathing, and development of fever. The patient expired six days following admission to the hospital.

Autopsy Findings.—Autopsy was performed seven hours and forty-five minutes following death. The examination revealed the body of a 64-year-old woman, who was well developed and fairly well nourished in spite of recent weight loss evident by the loose flabby skin. Clotted blood was present around the nares and mouth. The tongue was rough, and the gums soft and bluish in color. The pupils were unequal, the right measuring 5 millimeters in diameter and the left 4 millimeters in diameter. They were regular in outline. A generalized subcutaneous edema was present.

The peritoneal and pleural cavities were not unusual. The heart weighed 440 grams. The subepicardial fat, as did the fat elsewhere in the body, had a gelatinous appearance. On opening the heart, the blood was found partially coagulated into a pearly white, firm mass which, on sectioning, appeared laminated. Congealing of the remaining fluid blood progressed rapidly on exposure to air. The resultant clot was also firm in consistency, although it had a reddish color due to the admixture of red blood cells. Except for some fibrosis, the remainder of the heart examination revealed no unusual findings.

A bronchopneumonia was present in the right base. Petechial hemorrhages were found in the gastro-intestinal mucosa. The liver weighed 2100 grams and had the appearance of a chronic passive congestion. The spleen weighed 590 grams. Its cut surface was dark red and firm, and the malpigian bodies were obscured.

The genito-urinary tract was removed as a unit. The large prolapsed mass was composed of bladder and uterus. A double ureter was found on the right side. The kidneys weighed 190 grams each. They showed an advanced hydronephrosis, and cortical and medullary fibrosis were grossly demonstrable.

The calvarium showed the areas demonstrated in x-ray studies of the skull. These consisted of circular, slightly elevated, reddish-appearing zones, the largest measuring 1.2 centimeter in diameter. The ribs, sternum, vertebrae, pelvic bones, and femur were carefully examined for gross evidence of myeloma, but none was found; so routine sections were taken for microscopic study. The marrow of all the bones appeared grayish, firm, and cellular.

The brain weighed 1,400 grams. It was anemic and showed some atrophy of the frontal and parietal convolutions. A few scattered, brownish-colored areas were found in the lenticular nucleus, splenium of the corpus callosum, and in both occipital lobes. These measured from 0.5 to 1.5 centimeters in diameter.

Microscopic Findings.—Microscopically, the findings of importance related chiefly to a diffuse protein precipitation, and the cellular content of the bone marrow. The protein was found coagulated in the smaller vessels and capillaries of all the organs. In practically all places the deposits were evidently postmortem, as no reaction of the surrounding tissue resulted. However, histological findings indicated at least some of it had coagulated before death. This was especially true of the clot found in the right auricle and in the blood vessels of the brain. The former showed an early organization near the endocardial surface, and the latter was accompanied by degenerative changes surrounding the smaller vessels containing the protein. In the liver the sinuses were filled with the material, and this resulted in pressure atrophy of the liver cells. The spleen also contained protein in the sinuses and the same process was found in a more marked degree in the kidneys. Here a majority of the tubules contained casts, and deposits were found in the capsular spaces of the glomeruli.

Sections.—Sections of the lesions in the skull and routine sections from the sternum, vertebrae, and femur marrow presented an identical cell content of one predominant type. They varied slightly in size and shape. In the skull, their outline was irregular, but in the less dense bone marrow structure they were uniformly round. There was a fine stroma of fibrous tissue trabeculae supporting the growth, and in this stroma numerous small, thin-walled vessels were present. As seen with hematoxylin and eosin stain, the cells had intact, well-defined cell membranes and abundant, slightly eosinophilic cytoplasm. The nuclei were small, compact, and placed eccentrically. In some cells a clear halo separated the cytoplasm from the nuclei. The nuclei were hyperchromatic, and the chromatin tended to accumulate at the nuclear membrane in small condensations, giving the spoke-like nuclear pattern seen in plasma cells. Although no mitotic figures were found, many binucleated cells were seen.

COMMENT

The peculiar property of the blood protein to coagulate on exposure to air was similar to that in a case reported by Winthrop and Buell.[7] Clinical evidence of some blocking of the blood vessels before death was present in their case, as indicated by retinal hemorrhages, which were interpreted by them as resulting from plugging of the vessels by the abnormal blood protein. Definite histological evidence of blocking of the smaller blood vessels was apparent in the present case, as is shown by the small degenerated areas surrounding the clogged vessels in the brain, and an early but definite organization of the clot in the right auricle. No larger vessels, however, contained organizing thrombi, and no large areas of infarction were found. This protein, like that found in their case, was very unstable, both in the blood stream before death and on exposure to air.

Because of an occasional association of amyloidosis with multiple myeloma and the histological similarity of this protein to amyloid, a chemical analysis of the large clot in the heart for chondroitin-sulphuric acid was done. This was not found, although fixation in formalin may have altered the clot and made the analysis unreliable. With methyl violet, the material stained blue in contradistinction to the violet-red of amyloid. Although the appearance of the protein was homogeneous and could be mistaken for amyloid in hematoxylin and eosin-stained sections, its distribution was not in the positions in which amyloid deposits are usually found. This protein was found almost entirely in the blood vessels and in tissue spaces. In the kidneys it was distributed not only in the tubules, but in all the capillaries and in the capsular spaces of the glomeruli. Although arteriosclerotic changes were present in the kidneys, the chief cause of the renal insufficiency could very easily have resulted from the enormous deposits.

SUMMARY

A patient with unusually high blood protein, showing autohemagglutination, hemorrhages and renal insufficiency, was found at autopsy to have a diffuse plasma-cell myeloma, associated with minor bone changes. The protein present in the blood was very unstable in character, and coagulated readily on exposure to air. From histological changes found in the brain and heart, spontaneous

coagulation occurred in the blood stream some time before death. The actual tumor present was distributed throughout the bone marrow, with only a few clinically demonstrable lesions in the skull.

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DISCUSSION

Alvin G. Foord, M.D. (Huntington Memorial Hospital, Pasadena).—This interesting case represents a clinical and pathologic syndrome which I am sure is frequently missed by clinicians and pathologists because of its bizarre characteristics. Most, I believe, are signed out as chronic nephritis because of the renal insufficiency accompanying the disease. Others are called unexplained malignancy, bizarre anemias, etc. Too often the pathologist fails to examine the bones at autopsy, and misses the diagnosis completely. In the last few years we have picked up eight cases in Pasadena, simply by instructing our blood-counting technicians to be on the lookout for, and present to their chief, blood smears in any case which presents exaggerated rouleau formation. These are all investigated. Particularly is the middle-aged or older individual having the external appearance of malignancy with a moderate or marked anemia in which one cannot determine the origin of a malignant process, suspected as being a possible case of myelomatosis. Thorough blood chemical studies, including blood proteins, urinalysis for Bence-Jones protein, and x-ray examination are in order, and usually the case will be settled. However, as in two of our cases, there is often little or no destruction of bone, and it may be difficult to convince oneself and the radiologist that diffuse growth of myeloma is present in the same marrow spaces. The case presented demonstrates this beautifully. Bone marrow biopsy should clinch the diagnosis.

One should be careful in interpreting or trying to give too much significance to exaggerated rouleau formation in blood smears. The commonest cause, of course, is slow drying of the blood film, and hence all smears should be made and dried very quickly. The amount of rouleau formation will parallel the rapidity of sedimentation of liquid blood, and is largely dependent, as the sedimentation rate on the concentration of the globulins and fibrinogen in the blood. In all of our cases the sedimentation rate has been the fastest observed in any clinical condition, including the severe infections. If one did routine sedimentation rates he should seldom miss one of these cases. However, some cases, especially those with multiple large discrete lesions, are not associated with hyperproteinemia and hyperglobulinemia, nor are those which lose large amounts of protein in the urine. In fact, a few may have even less proteins than normal, due to excessive urinary loss.

The note, that the pathologist in this case observed some tinctorial similarity of the protein in the blood vessels to amyloid, brings up the remark of Magnus-Levy, who, in reviewing the cases of multiple myelomatosis with autopsies in the literature, stated that about half of the cases showed true amyloidosis. In a recent verbal communication, Wells stated that he believes amyloid is a globulin. Certainly Bence-Jones protein is a globulin, or a not far removed protein. Why this disease is accompanied by the marked changes in the blood proteins I cannot say, but the disease gives good argument for the belief that the blood proteins are formed in the bone marrow.

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Harry A. Wyckoff, M.D. (Stanford University Hospital, San Francisco).—This paper by Schumacher, Williams and Coltrin, is seasonal in that it emphasizes the importance of a valuable diagnostic clue leading to the recognition of myeloma. It is probable that this sign is relatively often overlooked or disregarded. Fahraens has clearly demonstrated the relationship of autohemagglutination and increased sedimentation rate of the red cells, and the association of autohemagglutination with increase of protein content of the plasma; particularly the fibrinogen and globulin fraction has come to be fairly generally recognized.

Although hyperproteinemia occurs in conditions other than myeloma, it is still sufficiently uncommon to make it a decidedly useful diagnostic aid. That hyperproteinemia may perhaps occur in its most pronounced form in myeloma also helps to direct suspicion to this disease.

The fact that myeloma may exist without increase in plasma protein must be kept in mind in this connection. It also appears that plasma protein content shows considerable variation during the course of the disease. It should further be remembered that Bence-Jones proteinuria may commonly occur without hyperproteinemia.

THE HEART: THE PRESENT STATUS OF PHYSICAL EXAMINATION*

By Guy Van Scoyoc, M.D.
Los Angeles

Discussion *by John J. Sampson, M. D., San Francisco; Saxton T. Pope, Jr., M. D., San Francisco.*

WITH the advance in our knowledge of electrocardiography and roentgenography in relation to the examination of the heart, one wonders just what place the physical examination of this organ now occupies. It is the purpose of this paper to attempt to throw some light on the present status, as well as to eliminate in a way some of the measures that have become obsolete by virtue of modern methods.

PHYSICAL EXAMINATION OF PATIENT'S HEART IS IMPORTANT

At the outset let me state that in my opinion the physical examination is as important today as ever, and it is in defense of this time-honored procedure that I present this paper.

With proper background and training, this procedure reveals more than ever before. This has been made possible by the more exact, confirmatory knowledge brought about by the use of the x-ray and electrocardiograph. By checking our physical findings with these instruments in any given case, we are liable to make a more correct physical diagnosis on the next patient who comes under our observation.

VALUE OF THE NEW PRECISION INSTRUMENTS

Unfortunately, there has been some misunderstanding as to the value of the more or less new

* Read before the General Medicine Section of the California Medical Association at the sixty-fifth annual session, Coronado, May 25-28, 1936.

precision instruments. I think if we consider them only as aids to our examination, the same as we use the various other laboratory procedures, a more satisfactory diagnosis will be made. There has been a tendency to abandon the physical examination of the heart in favor of instruments, only to find that instruments fail us at the critical time, and that we have to revert to what we see and hear.

Before proceeding, let me state that it is impossible to cover such a large subject as I have selected in the time allotted; so, of necessity, only the high points will be touched upon and those in a very brief manner.

INSPECTION AND PALPATION

Inspection and palpation of the heart may fairly be considered together, palpation confirming inspection findings. This portion of the examination should be local and general.

General Survey. — For a cardiac examination the patient should be stripped to the waist and, in some instances, the feet and legs bared. The latter has been made more necessary by the recent advances in our knowledge of peripheral vascular disease. If thermal changes with discoloration are found in the feet and hands, thrombi-angiitis obliterans, endarteritis obliterans, or Raynaud's disease should be considered. We should also look for edema, local or general, anasarca, character of the skin, petechial hemorrhages of subacute bacterial endocarditis, pallor, cyanosis, and dyspnea. Heart cases generally show dyspnea, especially in the presence of pulmonary edema or hydrothorax. If ambulatory, they show this conscious, increased respiration in varying grades with arteriosclerotic heart disease.

Dyspnea and cyanosis are closely related and frequently found together in valvular heart disease. Likewise, they may occur from extracardiac causes, such as compression of pulmonary veins, mediastinal tumor, aneurysm, coal-tar products, pneumonia, phthisis, edema of lungs, and pneumothorax. When cyanosis is out of proportion to the dyspnea, some of these exocardial conditions are liable to be the seat of the trouble.[1]

Inspection of the face is important. The blending of pallor and cyanosis may manifest itself in long decompensated heart disease, while aortic disease may show pallor alone. Mitral stenosis may give various tinges of yellow, while extreme cyanosis in the young adult almost invariably points to pulmonary stenosis. Edema of the face is generally of a cardiac nature, and the lips should be examined for capillary pulse of aortic insufficiency. If the pupils are not symmetrical and round, and provided injury and iritis are not a factor, a careful examination of the cardiac base is warranted, with syphilis in mind. Arcus senilis may be a clue to arteriosclerosis. Clubbing of fingers may be either pulmonary or cardiac.

If the veins of the neck or thorax are distended and tortuous, some intrathoracic compression is present that interferes with the return flow of the blood to the right heart. This may be a mediastinal tumor, a hypertrophied heart, or an aneurysm.

Table 1.—*Follow-Up Findings in 100 Cases of Apical Systolic Murmurs*

No murmurs	8 per cent
Uncomplicated systolic murmur	60
Advanced cardiac disease	30
Mitral stenosis	17 per cent
Aortic insufficiency	9
Combined	4
Deaths	2

Similarly, veins of the lower part of the chest may communicate with a caput medusae, lending evidence of portal stasis and inferior vena cava engorgement.

Unilateral diminution of motion of a chest may be due to hydrothorax that accompanies cardiac decompensation. Occasionally the trachea will be shifted from its normal position by an aneurysm, but more frequently this occurs as the result of fibroid retraction of the lung from tuberculosis. If due to aneurysm, the characteristic tracheal tug may be present.

Local Survey.—After a general survey has been made, a local inspection of the apex and extra-apical surroundings is in order. If the apex is displaced to the right or left, it is due to hypertrophy or dilatation of the heart itself, or pressure or traction from without, which may be pleuropericardial adhesions, pleurisy with effusion, lung tumor, fibroid phthisis, syphilis of the lung, deformities either occupational or acquired, or pressure from below the diaphragm. The site of the heart's apex is somewhat influenced by age, structure of the thorax, and respiration.

Various extra-apical pulsations of the thorax and neck sometimes give a clue to the underlying pathology. A pulsation in the left anterior thorax, between the second and sixth rib, may mean a pulsating pleurisy or a fibroid retraction of the right border of the left lung; a pulsation on the posterior chest wall, below the angle of the left scapula, indicates a large pulmonary cavity filled with fluid, while a systolic retraction in this area means pleuropericardial adhesions. A systolic pulsation above the base of the heart, or to the right or left of the sternum in this area points to aneurysm of the aorta.

A systolic pulsation of the jugular vein, representing the pathologic positive venous pulse, is caused by direct regurgitation of blood into the right auricle, and is significant of tricuspid regurgitation. However, it may also happen if patent foramen ovale is present. Diastolic collapse of the jugular veins accompanies chronic adhesive pericarditis.

Thrills are merely palpable murmurs. The mechanism which is responsible for their production is the same as for murmurs, namely, the narrowing of an orifice through which the blood stream is propelled into a larger chamber of the heart, aorta, or pulmonary artery. In general a systolic thrill at the base indicates either aortic aneurysm, structural changes in the aortic and pulmonary valves, or exophthalmic goiter. A thrill, if located in the second interspace to the right of the sternum, is good evidence of aortic

TABLE 2.—*Substandard Issues of 1925 to 1931 Inclusive—Carried to Anniversary in 1933. Men and Women. Expected Dead by Company's Standard*

Mitral Regurgitation

Group	Hypertrophy	Entrants	Number Dead	Ratio	Expected Dead	Mortality Ratio
Class A	None	2,745	80	2.9%	47.35	169%
	Slight	1,173	35	3.0	18.92	185
	Moderate	419	25	6.0	6.76	370
Total		4,337	140	3.2%	73.03	192%
Class B	None	1,232	45	3.7%	26.09	172%
	Slight	375	41	10.9	6.48	633
	Moderate	175	20	11.4	3.02	662
Total		1,782	106	5.9%	35.59	298%
Class C	None	766	61	8.0%	16.29	374%
	Slight	289	25	8.7	5.67	441
	Moderate	128	14	10.9	2.53	553
Total		1,183	100	8.5%	24.49	408%

Mitral Regurgitation—Rheumatic Group

Group	Hypertrophy	Entrants	Number Dead	Ratio	Expected Dead	Mortality Ratio
Class A	None	1,113	33	3.0%	14.97	220%
	Slight	718	32	4.5	9.71	330
	Moderate	321	33	10.3	4.37	755
Total		2,152	98	4.6%	29.05	337%
Class B	None	596	30	5.0%	9.74	308%
	Slight	244	15	6.1	3.45	435
	Moderate	107	10	9.3	1.51	662
Total		947	55	5.8%	14.70	374%
Class C	None	120	11	9.2%	2.01	547%
	Slight	54	7	13.0	.71	986
	Moderate	35	5	14.3	.46	1,087
Total		209	23	11.0%	3.18	723%

Class "A," referred to in the table, comprises simple heart murmurs with no unfavorable history from any source and no other significant impairment.
Class "B" refers to a simple heart murmur, plus an unfavorable history from some outside source, such as inspection, and not found by original examiner.
Class "C" refers to heart murmurs plus one or more additional impairments of considerable significance, such as diabetes or renal disease.

stenosis, and this condition is not diagnosed without the presence of this characteristic palpable murmur.

Diastolic thrills are occasionally found with aortic and pulmonary regurgitant lesions, but the presystolic thrill at or just inside the apex is the one most frequently found, and is indicative of mitral stenosis. However, a similar thrill has been found to accompany a Flint murmur.

Systolic thrills at the apex may occur with mitral and tricuspid regurgitation. Pericardial friction fremitus may be elicited in the presence of acute fibrinous pericarditis, but this finding is generally more easily interpreted by the stethoscope.

PERCUSSION

Percussion is a valuable procedure that varies in direct proportion to the ability of the percussor. While it is a somewhat clumsy method of investigation, nevertheless, it is sufficiently accurate for practical purposes in a majority of cases, and until every physician can carry a fluoroscope to each patient, there is very little we can do except use it, as it has been estimated that far less than 50 per cent of heart cases have the advantage of the x-ray.[2] With a little careful practice, occasionally checking ourselves against fluoroscopic findings and six-foot x-ray plates, a great deal more confidence in the procedure can be obtained.

In the preparation of this paper I have tried to review most of the modern authors on this subject.[3,4] All believe percussion is satisfactory for practical clinical purposes, and that the waning stress placed upon it has been unjustified. My own experience, after twelve years of teaching physical diagnosis, is that in a majority of the cases valuable information can be obtained. For the right and left border the error is about one to two centimeters as against orthodiagraphy or the x-ray plate taken at a distance of six feet, the percussion marking being this amount in excess of the actual size of the heart.

The great vessels are hard to percuss. This is due to the angle of the gladiolus with the manubrium of the sternum at the second rib, resulting in the aorta and pulmonary artery being normally quite a distance from the posterior surface of the sternum, most of the sounds elicited being due to the vibration and resonating qualities of the sternum. However, if any marked increase occurs due to pathologic changes, percussion is possible. As percussion never represents the exact size of the heart, obscure cases should be given the benefit of the fluoroscope or x-ray. Of course, it is

not possible to percuss the heart accurately in the emphysematous chest or the obese subject; neither can much satisfaction be obtained by this method if pleurisy with effusion exists.

In the practice of percussion the sense of resistance to the pleximeter finger as we progress toward the cardiac borders is important, and contributes considerably to this method of examination.

In percussing the left border of the sternum, the most common cause of dullness in the second interspace is dilatation of the pulmonary artery from mitral stenosis, chronic emphysema, patent ductus arteriosis, pulmonary valve stenosis or aneurysm of the aortic arch. Dullness in the third interspace of more than two to four centimeters from the midsternum, varying with the size and build of the patient, means cardiac enlargement, displacement or pericardial effusion, or pulmonary artery enlargement. The maximum distance from the midsternal line at the left border should be from seven to nine centimeters, and is usually found in the fifth interspace to the left. Any deviation from this should lead to suspicion of hypertrophy, dilatation or displacement. The apex may be within normal limits and still have marked enlargement of a serious nature in the third interspace as a result of mitral stenosis.

Percussion of the right heart is more difficult and, fortunately, findings may be of less importance. Dullness in the first and second interspace to the right generally means aneurysm of the aorta, marked dilatation of the superior vena cava, or mediastinal tumor.

In the third and fourth interspaces to the right, it may be possible to percuss the right heart's border in small children or thin adults, but frequently no conclusions can be arrived at unless pathology is present, as the right border is pretty well covered with lung. If dullness is found, the following must be kept in mind: dextrocardia, dilated right auricle, cardiac hypertrophy, aneurysm, pericardial effusion, or displacement from some extracardial cause. It is not possible to distinguish the great vessels from the base of the heart by percussion, or the lower border which is closely apposed to the liver, in which instance the cardiac dullness blends with liver flatness.

AUSCULTATION

For convenience of description, heart sounds are studied from the standpoint of intensity, pitch, quality, and duration. Intensity of the various cardiac sounds varies in normal as well as in pathologic individuals. Thickness of the chest wall, emphysema, certain deformities, and cardiac dilatation diminish the normal intensity. Both sounds are accentuated, following excitement and ingestion of stimulants, acute febrile disease and exophthalmic goiter, while apparent accentuation may be noted in thin individuals or in fibroid retractions of the right sternal border of the left lung.

The pulmonic second sound is normally louder than the aortic in children, and is accentuated in any condition that raises the pressure in the lesser circulation, such as pneumonia, emphysema, regurgitant and stenotic lesions of the mitral and aortic valves, while diminution of the intensity of the pulmonary sound is indicative of failure of the right ventricle. Accentuation of the aortic sound indicates hypertension in the greater circulation, arteriosclerosis, chronic nephritis, uremia and apoplexy, and is normally louder in the adult. Accentuation of the first sound may be due to hypertrophy of the left ventricle, exophthalmic goiter or during the course of acute fevers; whereas myocardial degeneration, dilatation, anemia, and wasting diseases result in diminution of the intensity of the first sound. Poor quality of the first sound in arteriosclerotic heart disease has been pointed out by Viko,[5] who found 69 per cent of a series of 159 cases showing this defect.

By reduplication of the heart sounds we mean a separation of the elements of either the first or second sound, with no disturbance in the rhythm. If the two elements of either sound come almost together, it is sometimes called a "split sound." If they are separated by an appreciable interval, they are said to be reduplicated or doubled. The phenomenon has been attributed to an unequal closure of the leaflets of the mitral and tricuspid valves during ventricular systole. Reduplication of the first sound is limited to the apex and may be found in arteriosclerosis, myocardial degeneration, mitral stenosis, and adhesive pericarditis. Reduplication of the second sound is attributed to an asynchronous closure of the aortic and pulmonary valves. Any condition that causes an alteration in the pressure in the greater or lesser circulation may produce this physical finding.

Gallop rhythm was first described by Potain. It may be divided into presystolic and diastolic, the presystolic being more important from a clinical standpoint. It is characterized by the occurrence of a third sound just prior to the first sound of the heart, and has been noted in association with hypertension in the greater circulation prior to failure of the left ventricle, coronary thrombosis, chronic renal disease, as well as being associated with mitral stenosis. The mechanism of the production is not clear.

Thompson and Levine,[6] in a study of eighty-nine cases, found the average duration of life to be ten months and twenty days after detection of gallop rhythm. They did not separate the condition into the various phases as "presystolic" and "diastolic," considering the subject under one heading of "diastolic gallop rhythm." Splitting reduplication and gallop rhythm are diagnosed by the stethoscope alone.

It is interesting to note, and extremely fortunate, that the most common disturbances of rhythm coming under the physician's observation can generally be diagnosed by physical means.

Premature contractions or extrasystoles are contractions arising in the heart outside the sinoauricular node; they are also known as ectopic beats. Their occurrence is common, their significance varied, and for the most part they can be diagnosed without instruments, though sometimes graphic means are necessary.

After we have satisfied ourselves of our diagnosis of this abnormality, the question of sig-

nificance arises. About 70 per cent of these premature beats are ventricular, the balance for the most part auricular. There may also be a rare prematurity arising at the node.

In a general way it may be briefly stated that, given a normal heart otherwise, extrasystoles are of no serious import. They may be due to reflex causes, tobacco, drugs, infections, etc., or they may accompany myocardial damage. Sometimes they are present when the patient is quiet and the pulse is slow, to disappear upon acceleration of the heart rate. These are usually of a benign type. Whereas, also, others become more pronounced on exercise, these generally point to some myocardial focus. The frequency with which the disturbance occurs is of some importance, as it may readily be seen that the cardiac output may be diminished if they are frequent and persistent. The future of the patient is not influenced by the premature contraction, but rather by the underlying cause.

Sinus arrhythmia is seen often in children to and including puberty. Frequently in connection with respiration, it has to do with changes in control of sino-auricular node, by influence of the vagus. Diagnosis is usually easy. The irregularity is of the whole beat, and the pulse and apex correspond. It clears on exercise. We may suspicion paroxysmal tachycardia and auricular flutter when the heart rate is around 150, but the diagnosis is made by the electrocardiogram. Auricular flutter is less frequently found than paroxysmal tachycardia. Neither are very common.

In the normal heart the impulse of contraction proceeds in an orderly manner from the pacemaker to the auriculoventricular node, resulting in a normal contraction of the auricle, thus expelling the blood into the ventricle. Under certain pathologic conditions this orderly sequence of affairs becomes altered, resulting in a twitching, quivering, and extreme disorder of the auricular musculature. This we know as auricular fibrillation. The ventricle now, instead of receiving its normal stimuli, receives stimuli that vary in strength, and periodicity. The ventricle now picks up as many of the impulses as the auriculoventricular conduction system can handle. If the auriculoventricular system is unimpaired, the ventricular rate is rapid; but instead of the ventricle being allowed to rest for the next beat, it responds as best it can to the various impulses from the auricle. This results in a series of strong and weak beats that are "irregularly irregular." The pulse presents a "pulse deficit," by which we mean there is a discrepancy between the apex rate and the radial pulse rate, some of the contractions not being sufficient to open the aortic valves. This type of irregularity most frequently is the aftermath of mitral stenosis and hypertensive heart disease. It also occurs in exophthalmic goiter, and can nearly always be diagnosed by physical means by the irregularity of the heart beat, pulse deficit, and the increase of the disturbance by exercise, in contrast to many of the extra systoles.

Of the disturbances in conduction only partial and complete heart-block concern us here. The partial may be diagnosed by the true intermission of the apex and pulse in an otherwise normal rhythm. Complete heart-block may be suspected if the pulse is forty or under, and is not changed by position or exercise.

Delayed conduction and bundle-branch block are determined by the electrocardiogram. Pulsus alternans may be detected by the blood-pressure cuff, but is best identified by the polygraph.

The cardiac murmurs present a large subject in themselves and are pretty well understood. There is some tendency to regard the apical systolic murmur with more suspicion than in the past. It may signify rheumatic involvement in the young, and sclerotic heart disease or hypertensive heart disease in the old. I can best illustrate my meaning by two slides that will be shown later, one taken from the mortality studies of the New York Life,[7] the other from observations of Fineberg and Steuer.[8]

The mitral presystolic or the aortic diastolic murmur when detected should be regarded as a serious omen, for sooner or later trouble will ensue. Systolic murmurs at the aortic area are generally of organic nature. The lesion may be a stenosis of the valves or a roughening of the proximal portion of the aorta. Pulmonary systolic murmurs are very common. They are generally blowing in character and localized at the pulmonic area. They may be regarded as physiologic. Rarely may we see the pulmonic systolic, stenotic murmur of congenital heart disease and patent ductus arteriosus. The cardiorespiratory murmur was not found very frequently in my experience. Tricuspid regurgitant murmurs are generally relative, while stenotic murmurs at this area are usually congenital. I do not believe a fixed function test is suitable for all cases. It is certain that the heart of an elderly person should not respond to exercise as well as one of a young athlete in training, so some response to activity in keeping with the patient's normal mode of life seems obvious. Function tests as applied to the cardiac examination may reveal evidence of valvular disease such as mitral stenosis, regurgitant mitral lesions, as well as an occasional faint aortic diastolic murmur. Likewise, definite accentuation of the pulmonic second sound or snapping of the first sound warrants careful examination for mitral disease.

In closing, may I remind you that the end-result of our examination is to determine what the heart is capable of doing and the expectancy we can place upon it.

510 West Sixth Street.

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DISCUSSION

John J. Sampson, M. D. (490 Post Street, San Francisco).—Doctor Van Scoyoc has presented an excellent review of the physical signs associated with heart disease. If space permitted, history taking should have been included in this article. It is a wise clinician who says, "Give your patient a chance and he will tell you his diagnosis." The personal interview with one's patient, necessary in history taking, often establishes a diagnosis of heart disease as well as evaluates heart function.

History and physical findings should not be disregarded when conflicting with technical reports. Three forms of special apparatus are commonly used in cadiac examinations, namely, the electrocardiograph, the roentgen ray, and the spirometer or other means of estimating cardiac function. One may indicate how too much emphasis has been placed on these facilities. Several years ago the value of electrocardiography was established in three groups of one hundred patients each at the University of California Hospital, namely, those patients with myocardial damage, with arrhythmias, and with miscellaneous variations such as caused by congenital lesions, etc. About 80 per cent were found correctly diagnosed prior to taking an electrocardiogram in each group. The electrocardiogram may give both positive and negative false evidence. Thus angina pectoris may produce no abnormal electrocardiograph change in 10 per cent of cases, and electrocardiograms taken one-half hour after an acute coronary occlusion may be quite normal. One particular patient at the University of California Heart Clinic has a normal electrocardiogram in the presence of both stenosis and insufficiency of the mitral and aortic valves. On the contrary, a young football player with a normal heart had 12 millimeters T waves, and another athlete a marked slurring of the R waves in all leads.

It has been learned by experience that "serious" arrhythmias, *i. e.*, auricular fibrillation, can be transient disturbances in an otherwise normal heart. Electrocardiogram ventricular preponderance is often a matter of the shape of a chest, and not of unequal ventricular muscle enlargement.

Cardiac roentgenograms notoriously fail to show the exact anatomical state of a heart. Mitral insufficiency or intraventricular septal defect may show nothing, even on fluoroscopy, if there is little dynamic disturbance, and strange distortions of heart shape may be encountered by variations in the shape of the chest and the height of the diaphragm.

No functional test has yet been devised as valuable as the history of a patient's ability to carry on various everyday activities without dyspnea.

Little has been left by Doctor Van Scoyoc for discussion of actual signs, but a few common findings that are often misinterpreted may be mentioned. In palpation, a thrill is often felt with the apex impulse in normal, thin individuals, especially children. A rocking apex impulse generally indicates left ventricular hypertrophy. The presence of an apex impulse well medial to a left-border dullness suggests either pericardial thickening or fluid, or an aneurysm of the left ventricle. The apex impulse as well as the left-border percussion dullness may be displaced to the left of the mid-clavicular line in normal hearts that are rotated upward and to the left by scoliosis. This is a common source of error in diagnosis of cardiac enlargement, as is displacement of the diaphragm and entire mediastinum from other causes.

Cardiac percussion has been considered of doubtful value in recent years; however, if an individual establishes his correct criteria of heavy or light percussion for various borders of the heart by frequent comparisons with roentgenograms, the procedure has real value. Percussion of heart dullness is naturally of little value in obesity or pulmonary emphysema.

In auscultation of the heart it seems that examiners have been too restricted by habits developed from didactic teaching on the characteristic areas of sound references from the particular valves. From roentgenogram of calcified valves it is not known that the aortic valve is normally under the sternum, or even to its left, and may be quite low in the chest. Under enlargement of various chambers the position of this or other valves may be so displaced as to entirely change the position commonly assumed by sounds or murmurs. The channels of blood flow must be considered likewise. Thus, rarely does one encounter mitral insufficiency without the systolic murmur being heard in the left subscapular region where the left auricle encroaches on the lung, or aortic stenosis without a clear systolic murmur heard in the carotid and subclavian arteries.

The third sound is another sign that is difficult to evaluate. Its presence in diastole may be termed gallop rhythm at all times, but it only carries the grave implication commonly assigned to this term, in the presence of a failing left ventricle. Certainly, this does not apply to the normal third sound heard especially in children, or to the "opening snap" of the mitral valve in mitral stenosis.

A clicking third sound is occasionally heard in midsystole, and has no apparent clinical significance.

The humming, continuous systolic and diastolic murmurs heard over the lower jugular veins, especially in children, have received very little attention, although ably described and explained by Hope in 1836, and is a normal finding.

Because of its ready application, blood pressure determination now constitutes a part of routine physical examinations, although the quality of the radial pulse will give much of the information obtained from this procedure. It is now recognized as a source of general information on heart function and metabolism, as well as merely peripheral arteriolar and capillary resistance. The pulse pressure generally parallels the volume of systolic output when other circulatory dynamic influences remain constant and thus serves as an excellent index of the failure or recovery of myocardial function.

It is important to assemble the various signs and symptoms of heart disease presented by an individual patient into a working unity and to be sure that they form a rational picture of the disturbed circulatory state, in order properly to evaluate them individually. Thus, dependant edema, whereas a sign of heart failure rarely is due to this mechanism unless there is an obviously elevated venous pressure as noted from distended jugular veins. Even in the presence of valvulitis, edema is more likely due to some other cause, such as concealed varicose veins of the legs, when high venous pressure is absent. Many other examples of signs and symptoms misinterpreted can be given, but among the common ones are tachycardia, pulmonary râles, cyanosis, chest pain, and even dyspnea. Thus, no one piece of evidence is pathognomonic of heart disease, but must be fitted into the signs and symptoms complex to establish its diagnostic or functional importance.

Saxton T. Pope, Jr., M. D. (University of California Medical School, San Francisco).—Doctor Van Scoyoc is to be commended almost as much on his choice of subject as on his exposition of it.

In attempting to establish a medical diagnosis, we see, we hear, we feel. Sometimes we smell. With extreme rarity, we taste. Decision is rested on the convergent evidence of several of our five senses.

The evidence is affirmed, if possible, by added methods of so-called precision. For the heart, these are electrocardiography and fluoroscopy. One must be grateful to them for the elucidation which, under proper usage, they can offer. Still one must deplore the disproportionate share of credit which they receive for their work.

It is an interesting test of the physician's skill and information to let him attempt an estimate based on physical diagnosis alone; that is, with stethoscope and sphygnomanometer permitted as his only tools.

In particular, I should like to praise Doctor Van Scoyoc's discussion of clinical methods for the segregation of the various arrhythmias.

Certain minor and technical objections to the body of the text at various points would include the following:

1. His use of the term "apex," under "Local Survey." Has it not been conceded generally that what one sees

(if he sees it) is the point of maximum impulse—a ventricular spot adjacent to the heart's true anatomical apex?

2. The omission of pneumothorax and massive collapse from among those pathologic processes which may affect the position of the point of maximum impulse. The former may considerably displace that point from the affected side. The latter may almost equally draw it toward it.

3. The omission from the list (emphysema and obesity) of an important complication to accurate cardiac percussion—the female breast, when generous.

I find myself in hearty concurrence with his admission of the difficulties of right-sided cardiac percussion, his interpretation of the major signs of cardiac disease, and his reverence for detailed physical examination.

DEAF AND HARD-OF-HEARING CHILDREN: THEIR PHYSICAL AND MENTAL NEEDS*

By Rexford Hoobler, M.D.
Oakland

Discussion *by Elwood A. Stevenson, Superintendent of School for the Deaf, Berkeley; J. C. Edwards, M.D., Berkeley.*

DURING the past fourteen years, I have been Director of Health at our State School for the Deaf in Berkeley. This covers a span of years necessary for the hard-of-hearing boy or girl to assimilate an education. I have followed many of these children from the time they entered school until their technical education was complete, and frequently during this time I stopped to consider if we were doing all we could to advance their physical and mental needs.

In reading medical literature discoursing on the physical and mental needs of the child of defective hearing, I found the subject dismissed with the statement: "The health problems of the deaf are handled in a special manner by those in charge of the deaf." So often have I met with this statement that I begin to think we do have special physical and mental problems, and that the best way to improve them is to share their knowledge with the pediatricians of the State. I ask that you be more conscious of the need of your assistance for their better health.

There is a very definite lack of confidence in the medical profession on the part of the parents of these children. I give the creation of false hope as the cause of this, whether it be our fault or that of poachers on the medical profession. You may supply the remedy.

On entry to the school, only about 20 per cent of the children are immunized to smallpox and diphtheria. According to late surveys, this is fairly high. Although immunity to pertussis has been in vogue for the past two or three years, it has not reached these children before their arrival at the school. There is need for greater insistence on immunity to these diseases.

SCHOOL STAFFS

Some of our city schools have added to their staffs supervisors of the conservation of speech, sight, and hearing. This should be encouraged in your school, as prevention is the better way to attack the problem. Parents are being notified of defects in speech, sight, and hearing. If a parent should bring such a notice to you, please make a careful examination, as it may save some child from becoming hard of hearing, deaf, or blind. An audiometer is used to test the hearing of the children in most cases, and is probably more accurate in determining diminished hearing than any instrument you have in your office. This work has just started, and will probably make rapid progress.

CLASSIFICATION OF HEARING DEFECTS

If we are to keep up with what the educators expect of us, we must better equip ourselves and our offices. We should know how to classify the types of hearing defects. We should know how to sort the hard of hearing from the deaf child. We should know of the benefits of hearing aids and their limitations. We should know of the American Society for the Hard of Hearing and where the nearest League for the Hard of Hearing is. They should know of the nearest school for deaf children and of the facilities for lip-reading instruction for hard of hearing day-school children in our public schools. We should know what to say to the parents of these children as to their psychology and education. We should follow up every case to assist in its proper placement and its proper psychological adjustment.

IMPORTANCE OF SIGHT CONSERVATION

The deaf and hard of hearing are educated through the eye, to a far greater extent than normal children. Since the eye does double work, it is very necessary to conserve the vision. Thirty per cent of those with defective hearing wear glasses. On entry to the school, 10 per cent of the children are in need of or wear glasses. After two to five years, 25 per cent are in this class, and finally 30 per cent find the need of corrected vision.

STAFF AT THE STATE SCHOOL FOR THE DEAF

Our staff consists of a specialist in eye, ear, nose, and throat, a dentist, and a pediatrician. Contrary to general conception, the State School for the Deaf in Berkeley is not a home, clinic, or asylum, where the deaf and hard of hearing are committed, but a free boarding school where children of regular school age, capable of learning by special methods—are guests of the State for nine months of the year. The other three months of the year they return to their homes in your locality and are referred to you to correct defects not considered emergencies. We do not see all the hard of hearing and deaf children of the State. Many of them attend special classes for hard of hearing or deaf as day pupils in the public schools of the larger cities of the State, and so our special health problems and methods become yours as well.

A greater number of the pupils at the State School for the Deaf in Berkeley are totally deaf. They are sent there because of the greater difficulty in instruction, as well as the different methods used than with the hard of hearing. The ratio is ap-

*Read before the Pediatric Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2-6, 1937.

TABLE 1.—*Causes of Deafness and Hard Hearing in State School for the Deaf*

	Per Cent	Ratio	
		Hard of Hearing	Deaf
Congenital	45	1	9
Spinal meningitis	12	1	36
Measles	4	1	6
Scarlet fever	4	1	11
Falls	4	0	11
Influenza	3	1	9
Mastoids	3	1	2
Birth injury	2	1	7
Abscessed ears	2	0	7
Pertussis	1	0	6
Pneumonia	1	3	2
Unknown	13	1	3
Others	4	..	..

proximately one to ten. I have been using the terminologies, "hard of hearing" and "deaf." Perhaps it is best briefly to explain. By amplification of sound the hard of hearing understand speech. The deaf cannot.

ETIOLOGY

The causes of deafness and hard of hearing at the School are as indicated in Table 1.

As far as the causes of defective hearing are concerned, they give us some idea where to put our efforts. I wish to state again that the foregoing percentages are based on a group of children predominately deaf and will not correspond with percentages given for hard of hearing and deaf children.

Congenital Group. — The congenital group of defective hearing shows 90 per cent deafness and 10 per cent hard of hearing. It comprises 45 per cent of all children in the School. Questionnaires returned by the parents give as the cause, "Born that way." We can only conjecture as to the specific cause. Marriage of defective hearing persons, illness in pregnancy, and administration of quinin and other drugs prenatally, are responsible for the majority of such cases. The early vicissitudes of prematurity, twins, and birth injuries may be included in this class. On the authority of E. A. Fay, marriage of persons, one or both of whom have defective hearing congenitally or adventitiously, are more apt to result in children of defective hearing than ordinary marriages. Persons of congenitally defective hearing, whether they are married to one another, to adventitiously defective hearing, or hearing persons, are more liable to have defective hearing offspring than are adventitiously defective hearing persons. In general, marriages in which a defective hearing person takes a hearing partner result in a higher percentage of defective hearing children than if they married among themselves. To encourage the defective hearing to marry among themselves, however, is contrary to all laws of inheritance and would ultimately lead to a deaf race.

The percentage of defective hearing offspring in general runs from 2.2 per cent where one is adventitiously deaf or hard of hearing and the other hearing, to 25.9 per cent where both parents are congenitally deaf or hard of hearing. To reduce the number of congenitally deaf or hard of hearing, discourage conception, especially in the congenitally deaf or hard of hearing. This, however, is a delicate subject, and must be approached with care.

Our records assign illness in pregnancy as the cause of 0.3 per cent of the congenital defects in hearing. There is no way of determining the difference between an anomaly and inflammatory effects of pregnancy illness on the hearing apparatus. Lues, typhoid fever, pneumonias, toxemias of pregnancy and others probably account for a far greater percentage of congenital defects in hearing than we are aware of. Excessive administration, prenatally, of such drugs as quinin, salicylates, and others, affect the hearing apparatus of the unborn child. The difficulty of stating exact percentages is apparent here. There is need of greater care in giving such drugs.

Twins and prematurity have been assigned as the cause of a small percentage of our defective hearing. I know of no way to verify this, however, and since the cause of congenital defective hearing is mostly conjecture, I do not wonder that the physicians merely inform the parents that the child was "born that way."

Adventitious Group.—The causes of defective hearing in the adventitiously deaf or hard of hearing, however, give us more definite knowledge of where our efforts are needed. Spinal meningitis is responsible for 12 per cent of our hearing defects. The ratio of hard of hearing to deaf is one to thirty-six. The nerve is most frequently involved, which accounts for the large ratio of deaf. Let us hope that the newer conception of meningitis will reduce hearing defects.

Scarlet fever is responsible for 4 per cent of our enrollment. The ratio of hard of hearing to deafness is one to eleven. In spite of frequent middle-ear involvement, which should produce hard of hearing, our group would indicate a predominance of those where, through toxic effect, the nerve was involved, leading to deafness. I feel that more immunity, and more thought and care in handling, and more knowledge of how to handle scarlet fever, is definitely indicated.

Measles accounts for 4 per cent of our hearing defects. The ratio of hard of hearing to deaf is one to five. At the School, it has produced as many defective hearing as scarlet fever. Apparently the disease is considered too lightly.

Falls have been assigned as the cause of deafness in 4 per cent of our cases. It is recognized that concussions may result in hemorrhage into important hearing centers, and that fractures may even sever the nerve. Slight falls, however, which children have every day, and to which every mother attributes hearing defects, are not likely to be responsible.

Influenza is accredited with three plus per cent of deafness and hard of hearing. The ratio is one to nine, deafness predominating.

Radical mastoids involve removal of the conduction apparatus of the ear. Half of our mastoids are hard of hearing. Three per cent of our children have had radical mastoids. A type of radical mastoid is being tried out which leaves the conduction apparatus intact. Let us hope this will result in saving the hearing. In 2 per cent of our children, the parents give birth injuries as the cause of hearing defects. The ratio is one to seven. Deafness predominates. This probably does occur, but possibly less frequently than claimed. Greater care should be used in the application of forceps.

Abscessed ears, other than those caused by scarlet fever and measles, account for 2 per cent of our hearing defects. Is the pediatrician as well qualified to treat this condition as the otologist? I am aware that many of our leading pediatricians prefer the otologist to assume the responsibility. If it rests with the pediatrician, many of us must improve our technique.

Pertussis accounts for one plus per cent, all of whom are deaf. If the pertussis vaccine is efficacious, more children should be immunized.

As common as pneumonia is, less than 2 per cent of our children can claim this as the cause of their trouble. The ratio is two to three, deafness predominating.

"Unknown" is given as the cause of defective hearing among the adventitious to the extent of 12 per cent of the entire enrollment. The ratio is one hard of hearing to three deaf. This indicates the need of conservation of hearing in the School. It also indicates a use that can be made of the Social Security and Crippled Children's Acts.

Since these are the causes of deafness and hard of hearing, it is our duty, then, to be ever watchful of the children entrusted to our care that they may not have to endure this great handicap.

STATE LAWS TO AID DEAF AND HARD-OF-HEARING PERSONS

Certain laws exist for the medical care of indigents with defective hearing that you should know about. Such indigent persons or their families may apply for treatment in local county clinics or hospitals. If such institutions do not exist in the county, a certificate can be obtained from the Superior Court judge, and through the State Board of Health such treatment can be obtained in hospitals of other counties or through private individuals, as determined by the State Board of Health, the latter to pay for services, appliances, etc., and collect from the resident county. The Board of Supervisors, likewise, has the authority. The same applies to any indigent child at the State School for the Deaf. If the State Board of Health or County Board of Supervisors sees fit to assign the case to you, you can be compensated for your services. As a consequence no needy, physically defective or handicapped child under eighteen years of age need be without proper medical care and supervision. I understand certain phases of the Social Security Act will be applicable to defective hearing children, also. Doctor Stadtmuller of the Bureau of Child Health of the California State Health Department, who is familiar with every phase of these Acts, is to present them at this meeting. She will undoubtedly show how they are further applicable to the children we are discussing.

TESTS FOR DEAF AND HARD-OF-HEARING CHILDREN

There is need for better performance tests for deaf and hard-of-hearing children. These children enter school with varying degrees of knowledge and capacity to acquire knowledge. Both the hard of hearing and deaf are generally backward, compared with hearing children. At present the non-language test is being used. New normals for the deaf and hard of hearing should be established. Dr. Olga Bridgeman is the only one I know of who can predict with any accuracy the mental capacity of these children on entry. It frequently takes months to determine a child's capacity for learning with our present methods. Where time, patience, intelligence, and love on the part of the parents are lacking, some of these children arrive at school age almost as wild children.

KINDERGARTENS

This suggests the necessity of establishing kindergartens for the deaf and hard of hearing in our public schools, which at the present time do not exist. The parents have no way of conversing with the deaf, and the hard of hearing pick up what language they can from frequently too busy parents. They need this preschool adjustment more than the hearing child. The hard of hearing at this age need the exercise of patience and time, to be taught at proper hearing distance, the sound and modulation of the voice and rudiments of language. Give your help to see that such kindergartens are established in appropriate centers so that the deaf and hard of hearing of kindergarten age can benefit by them.

MECHANICAL HEARING AIDS

Great progress has been made in the last few years in bone and air conduction hearing aids. There is need, however, for better and cheaper instruments for those interested in this kind of work. The cupped hand or megaphone has its place, but hearing aids greatly facilitate the accumulation of knowledge.

IN CONCLUSION

I have tried to give you a few of the physical and mental needs of deaf and hard-of-hearing children. I am not an otologist nor an educator, but a pediatrician, and as such my viewpoint is more general. As pediatricians, the physical and mental needs of these children are our problems. Please accept your responsibility and give careful thought to all matters pertaining to the prevention of defective hearing and the treatment and adjustment of all things pertaining to the physical and mental betterment of the deaf and hard-of-hearing child.

1624 Franklin Street.

DISCUSSION

Elwood A. Stevenson, Superintendent of School for the Deaf, Berkeley).—Perhaps the best approach to this discussion would be to classify the deaf child and to indicate a few of the specific problems confronted by the average physician, otologist and layman. In the first place, one should have a very definite understanding as to who is deaf and should not confuse him with any other type of handicap.

A deaf child is one who has lost all use and function of hearing. He has no remnant of hearing for the actualities of life. He is deaf and cannot understand spoken language through the sense of hearing. The deaf child does not have partial hearing; he cannot "hear a little." The fact that a deaf child might possess very clear intelligible speech does not alter the fact that he is deaf. He may or may not be able to speak, such condition depending on several factors. A child who hears, but does not speak is not a deaf child. Yet oftentimes such children are looked upon as being deaf. One who "hears a little" and can understand spoken language, although with great difficulty, is not deaf. Such a child is hard of hearing. Do not confuse the two. One cannot hear. The other hears although defectively. Each presents a different problem educationally, medically, and economically. As the name implies, this child still possesses hearing although defective. He can hear, provided the source is brought within his hearing range. Suitable hearing aids are of benefit to the hard of hearing. Aids should never be recommended for the deaf. It is useless and criminal to do so. Salesmen should understand this.

Do not be deceived when a deaf child responds to sound or to the call of his name. He is, nevertheless, deaf and possesses only what is termed "sound perception," and not hearing. Do not be surprised when I say that practically 85 per cent of all deaf children possess sound perception. It might be termed a "slit of hearing," in the same way as one terms "slit of vision" in the blind person. The deaf child can react to audiometer tests and yet has no usable hearing.

Naturally, the easiest and quickest way to educate is through the sense of hearing. The deaf child must be educated, however, entirely through vision. He is taught through lip reading, speech, written work, and reading. However, all deaf children are not capable of speaking and of lip reading, and for several reasons. Some can and some cannot. Furthermore, the ability of lip reading is not always indicative of a higher mental ability. With the deaf, the avenue of hearing as a means of instruction is entirely cut off.

In contrast, the hard of hearing child already possesses speech. He also can take instruction through his hearing, provided speech is brought within his range either by getting closer to him or by use of a suitable hearing device. He, likewise, learns lip reading to supplement his hearing. Under normal conditions, he can cover ground more rapidly than can a deaf child. Naturally, at the normal distance for hearing, the hard-of-hearing child does not hear normally. However, through the practice of lip reading he is sometimes enabled to understand spoken language by hearing the vowels, which are difficult to see, and by seeing the consonants, which are mostly visible to the eye. Because of his possession of speech, which may or may not be defective, because of his usable hearing, made possible by adjusting the distance from the source or by using suitable hearing aids, the hard-of-hearing child has a great advantage over the deaf child in securing his education, and in making his social and economic adjustment. For these reasons, he should not be treated and educated with deaf children.

To the average deaf child, the use of the English language is the most difficult. Remember, the use of English to the deaf child is like the study of a foreign language to you, only infinitely more serious. In studying a foreign language you have your hearing and also your mother tongue for guidance. The deaf child has not. The key to his success in his future adjustment is his understanding and use of language. Speech and lip reading are essential, but are of very little value without language. The necessary factors for the proper adjustment are, first, a good education, and, second, the knowledge of a suitable trade; and both these factors are naturally strengthened by the ability to speak intelligibly and to read lips. If then given an even opportunity by the public, he can easily assume his responsibilities as a citizen and take his place in the world at large.

You, as doctors, can play a very important part in the lives of deaf and hard-of-hearing children by studying and understanding the problems and knowing what to do. For the hard-of-hearing child give remedial care when possible, and advise lip reading and necessary health care for all. For the deaf child, recommend immediate placement in a suitable school for special instruction. There is no cure for total deafness and no outgrowing it. Proper education is the cure. There is a state law requiring every physician to report to the Superintendent of the School for the Deaf in Berkeley every deaf child or seriously hard-of-hearing child who passes through his hands. By making these reports quickly and to the proper authorities, a deaf child's future may be saved. Too often a deaf child is sent to school years after the fact is discovered, and at a time when it is too late to do anything. Such cases are tragic. Of all groups of handicapped children, the deaf child, at best, has the most difficult time in obtaining an education. Think of your own good fortune and blessings, and through your service to the deaf child and to the hard of hearing at the right time, make it possible for them to have the opportunity of sharing these blessings which should come to them in greater measure because of their handicap.

J. C. Edwards, M. D. (2140 Shattuck Avenue, Berkeley).—The pathologic changes relating to the ear and the various causes of deafness are so numerous that only a brief outline is contemplated in this discussion. Deafness does not necessarily mean total deafness. There are persons in whom only certain sounds are vague, indistinct, or absent. These persons are handicapped very little in their normal pursuits. They have so-called islands of deafness for certain sounds and musical tones, and their hearing above and below these zones may approach the normal. Others have a diminution for all tones, but by close attention and concentration can distinguish, with an effort, the well-spoken voice. These are the hard of hearing. We pass through the various shades of deafness to those cases where all sound concept is absent, where music and voice and the everyday sounds exist only in the imagination. These are the totally deaf, and their misfortune produces a great social and economic problem. For them, natural communication and expression is impossible or unsatisfactory. The child born deaf may have normal speech mechanism, but having heard no speech, this mechanism remains dormant. However, in some cases a fair degree of distinguishable speech may be developed by long and painstaking teaching.

Deafness is caused by pathological changes occurring either in the conduction mechanism or the perceptive mechanism of the ear or a combination of both. The conduction mechanism comprises the outer ear, the external canal, ear drum, the chain of ossicles or bones leading from the ear drum across the middle ear to the oval window, the middle ear itself, and the eustachian tube. The perceiving mechanism is the cochlea, containing the organ of Corti, the cochlear branch of the auditory nerve and the terminal endings of this nerve in the brain. Consequently, we diagnose deafness as conduction or perception deafness. The degree and nature of the deafness are determined by various methods, chief among which is the ability to hear the spoken voice, whisper, tuning forks, audiometer and other mechanical sounds.

Conduction deafness indicates that sound waves are unable to reach the perceiving mechanism, and this deafness may be due to numerous causes, among which are hypertrophied tonsils whose upper poles may be compressing the eustachian tubes, adenoid growths around the mouths of the tubes, acute and chronic catarrhal changes in the middle ear, ossicles and tubes, thickened, inelastic ear drums, large perforations in the drums, malformations of the external auditory canals, sinus infections, marked occlusion of the nasal passages from various causes, etc.

Perception deafness means that the nerve impulse is either not initiated or that it is blocked along some part of its course to the brain.

In those born deaf, some intra-uterine change has taken place within the cochlea, or the inner ear has not completed

its natural development, or the nerve tract does not function or is absent, or either the cerebral or cochlear nerve filaments has failed to make proper connections.

Acquired deafness is due, to a large extent, to the acute diseases of childhood. These diseases may result in either conduction or perception deafness, or both. It is interesting to note that in acquired deafness, resulting after the child has heard and spoken, the memory of the speech and the ability to express itself with the spoken word is often retained, while the child born deaf has never heard the spoken word and is unable to speak because it has no memory of past speech.

Sound reaches the ear through two media—air and bone. Normally, the sound of a vibrating tuning fork heard in the air lasts from two to three times as long as the same fork heard by placing it on the skull. The change in the relationship of this time element is very helpful in determining the nature of the deafness.

The most practical method of determining the nature and degree of deafness is by vibrating tuning forks. These forks represent various tones according to their rate of vibration. The audiometer is a device producing various degrees of sound by means of electrical vibrations. It is indispensable in mapping the degree of hearing. However, in a great many cases its findings are only of scientific interest, as these cases are beyond artificial hearing aid.

In recent years hearing devices have been improved to a marked extent both as to air and bone conduction. At the present time plaster of paris casts of the canals are being made for each individual case, the resultant cast being of hard rubber and fitting snugly into the ear canal. To this cast is attached the vibrating element. Many of the hard-of-hearing children are being benefited by these devices, some hearing better by air conduction, while in others bone conduction accomplishes the better result. In the hard-of-hearing cases, it is always advisable to have an audiometer diagnosis and the hearing aid tuned to its findings, rather than to accept any hearing device as advertised.

The deaf child being deprived of one of the principal senses must, therefore, to a great extent, depend on sight.

In consequence of this fact, emphasis is placed on thorough and frequent eye examinations. All children at the School for the Deaf are subjected to ophthalmoscopic examinations and retinoscopic study for refractive errors. It is absolutely necessary in children to suspend their accommodation by the use of atropin or homatropin in order to arrive at the proper diagnosis of their refractive error. The habit some doctors have of referring children to optometrists should be discouraged. Refractive errors, which in the normal child would be disregarded, are usually corrected in the deaf child and glasses prescribed. Frequently we find the stigmata responsible for the deafness reflected in the eyes. Partial optic nerve atrophy, choroiditis, retinal changes, high degrees of myopia and hyperopia, interstitial keratitis, and congenital cataracts, are some of the eye conditions encountered.

Each child entering the School receives a complete physical examination. The upper respiratory tract is minutely inspected for any pathology, the correction of which might improve the hearing. The contour and size of the outer ear, the external auditory canals, the condition of the ear drums, if present, and the nature and amount of any aural discharge are noted. Any remnants of hearing are recorded on the audiometer in view of some mechanical hearing aid.

Where surgical intervention is indicated, the parents are notified and their consent requested for the necessary surgery. However, there are many instances where ignorance, superstition, or indifference on the part of the parents or those responsible, and the teaching of certain cults operate to the detriment of the deaf child.

There still remains a wide gap between modern medicine and certain individuals. The old beliefs and superstitions linger in these people. We must be teachers as well as doctors. Preventive medicine and curative medicine should go hand in hand. You, as pediatricians, see many of these unfortunate children first. You should be thoroughly familiar with all of the problems surrounding the two greatest causes of human economic loss—*blindness and deafness.*

THE LURE OF MEDICAL HISTORY†

SARRÍA'S TREATISE ON THE CESAREAN OPERATION, 1830*

By Sherburne F. Cook, Ph.D.
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II‡

TREATISE ON THE METHOD OF PERFORMING THE CESAREAN OPERATION

I. Repeated thanks should we render to Divine Providence for having brought it about that a matter of such sublime importance as the practice and application of the cesarean operation has come to be, should be freed from that multitude of doubts, arguments, and authorities with which most of the ancients obscured it, and by means of which they vitiated its most happy progress and results. Even further, Divine Providence has achieved their destruction and elimination forever by powerful and convincing means, as is a frequent experience. All of this is well known to scholars, and to set forth the matter in great detail would mean the inclusion of much erudite material, interesting from the point of view of fact, but little or not at all conducive to the primary purpose which we have in mind, namely, to render more accessible and clear the method and procedure of that operation for the greatest good which can be derived from it.[11] § For this purpose we have consulted certain of the more classical authors who treat of the matter, but particularly Father Rodriguez, the Cistercian Monk, in his very learned work *Nuevo Aspecto de Teología Medico Moral,* Volumes 1 and 4, where, with subtlety and thoroughness, he explains the matter well. This being understood, it is quite obvious that on the cesarean operation, in those cases where it needs to be performed, depends the spiritual and even corporal salvation of innumerable unborn persons. Also the obligation is evident which the priests owe to justice and the clergy in general to charity in the matter of coöperating for the salvation of souls. Furthermore, very generally known are the decrees of various councils and the orders of the bishops and magistrates to the effect that the cesarean operation shall never be omitted in any case in which it might be hoped that thereby spiritual aid could be rendered to the offspring.** It is equally clear that in many small towns and villages there is lacking any person ex-

†A Twenty-Five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of California and Western Medicine. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.

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‡Part I of this paper appeared in last month's issue, on page 107.

11 The footnotes designated by symbols, not numbers, are those which occur in the original.

§ See, concerning this matter, Chapter 7, lines 12 to the end, Book II of the diocesan synod.

**In Volume 4, Paradox 2, Chapter 1, of the work of Rodriguez, there are found references to these decrees of councils and orders of bishops and magistrates. And the Roman ritual, treating of the sacrament of baptism, says: *Siu mater pregnans mortus fuerit feto quam primus extrahatur si vivus fuerit bapticetur.*12

12 The Latin is inaccurate, but in general the passage may be translated: "If the mother shall die before the child is born, it shall be removed, and if it is alive it shall be baptized."

perienced in this business. By an experienced person is understood a surgeon, physician, practical midwife or some layman who, for charity's sake, has learned the procedure of this operation. But it frequently happens that even if one of these persons is to be found in some neighboring town or village it is difficult to have recourse to him for various reasons: on account of distance, because the necessity of bringing help to the infant is most urgent and consequently delay is exceedingly dangerous, because he can or possibly will not come, or because, if he does offer his services, it is at an immoderate price which cannot be met. In these cases of poverty and want, Father Desclato and Doctor Cangiamila both say—in order that lamentable and irreparable damage may not be done to the infant, alive within the mother's abdomen, by burying it with the dead mother and consequently simultaneously depriving its soul of salvation and its body of life—that the parish priest or any clergyman who took care of the mother may, and in fact should, himself perform the cesarean operation, or at least explain it to some person who is present, in order that the latter may perform it. They [these authorities] add that in this case the priest or clergyman should be present during the course of the operation, for the loss of the infant may be involved. But how will the priest be able to explain this operation or do it himself in case of necessity unless he has a clear description of it? This is very pertinent because no account [of the operation] is to be found save by authors whose works are rare, elaborate, and very expensive. Such will not be the situation here since we are now supplying the present abstract, by means of this treatise, from which the method may be acquired with ease.

In fact, there have been instances in which priests, because they were conversant with the theory of this operation, have availed themselves of it in time of urgent need and in default of any physician, and by this means have brought spiritual and temporal relief to several infants who without such help would have been lost forever.

II. All this is very fine, someone may say, but how are we going to avoid the difficulty inherent in a manipulation during the performance of which some grave suspicion concerning chastity might be incurred. There is no doubt that in any matter which compromises chastity we ought to be very fearful and timorous. But it may be replied that in the matter which we are about to consider, the objection has no force. The reason is that when it is a question of meeting such an emergency (we might say the greatest of all) as is the salvation of the soul by Holy Baptism and perchance also the corporal life of an infant, and when, furthermore, justice or charity lays an obligation on the person who must administer the aid (as happens in our case), the danger of incurring some suspicion respecting chastity is a remote danger, and should not be invoked in order to avoid rendering such aid. And much less [the danger] when under such circumstances we may expect the help of God and may add our prayers and supplications in order the better to secure it. I could amplify and support these considerations with many authoritative opinions by Holy Saints and learned doctors, but their erudition enables them to expound the matter with more fervor than I am capable of expressing. Therefore, I am omitting further discussion. Nevertheless, whoever aspires to find more arguments against the above objection may refer to the work of Father Rodriguez, Volume 4, Paradox 2.

Another reason may be given to encourage even the most scrupulous not to forego the cesarean operation in case necessity and obligation require its performance. This reason consists in the great decorum with which it is possible to perform the operation. It is sufficient here to say that there is no necessity for any part becoming visible which could offend the most delicate modesty, as will be made clear when the execution or performance of this operation is described.

III. The two arguments which we have just set forth are more than adequate to refute any objection and quiet every scruple. However, since it may be suggested that someone will discover still further obstacles, it will be advisable to mention [some of] them and give their respective solutions. The first is the canonical prohibition which orders that no subdeacon, deacon, or priest exercise any surgical art which involves incision or combustion. This obstacle is eliminated simply by paying attention to the proscriptions of the law and the procedure of the cesarean operation. The prohibition is that no ordained minister may exercise the art of surgery, but strictly and rigorously speaking the cesarean operation can and should not be called surgery because it is practiced on the dead body and solely in response to a very grave and urgent necessity.

Surgery (on the other hand) is performed on living bodies, as is well recognized. Hence this objection is of no significance.[13]

Another argument which might be offered against undertaking this operation, that of the irregularity, *ex deffectu lenitatis*,[14] is more troublesome, although weaker than the preceding one. For to be guilty of irregularity it is necessary to perform an incision, mutilation or other similar operation on a living body, which is not to be found in our case. It cannot be denied that the infant might die while the operation is being performed, or might even be injured by unforeseen chance on opening the abdomen of the deceased, but the injury to the latter is by intent and the purpose of the act is to give two lives [*i. e.*, corporal and spiritual] to the infant, and carefulness and vigilance in avoiding all mistakes is assumed. The two bases of irregularity are thus absent, namely, that the work is illicit and that there be antecedent moral laxity.

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[13] It is clear from this passage that Father Sarría regarded the cesarean operation as applying only to delivery from dead persons. However, he must have been fully acquainted with the usual surgical procedure in the delivery of a live woman, although for purposes of his argument he uses the term in its restricted sense.

[14] Literally "from the defect of leniency." The argument is confusing here. However, he evidently is answering two objections under the same head: first, that by inadvertence the infant might be injured, which would be contrary to the law against the performance of a surgical act on a living body; second, that there might arise some question relative to abortion, which of course is a practice entirely to be condemned.

To summarize, in order to satisfy these, and any other scruples which can arise, there need only be present circumstances involving that very serious and pressing necessity which can be met solely by means of the operation under discussion.

IV. Having satisfied the above-mentioned objections there remains for us to get ahead with the matter, and for this purpose I think it most convenient to begin by establishing certain general propositions, which are very firmly grounded truths, which repeated experiences have established and confirmed, and which, furthermore, have come to be fundamental procedure in the execution of the cesarean operation. The first is that the moment in which the pregnant woman dies is not that in which the offspring dies. The second is that the offspring may live, and experience has demonstrated that it may survive not only minutes but hours, and even one or two days. The third is that, although the illness from which the mother died may have been long and malignant, the offspring can survive and actually has been seen to survive a considerable time. The fourth is that even granting the death of the mother to be violent and terrible, such as in the case of lightning stroke, it has been proved by experience that the infant may survive for a certain period. These four propositions having been conceded as beyond doubt, it should be resolved, as a general rule, to practice the cesarean operation on the death of every pregnant woman, because no matter by what means the mother meets her death, it is possible to preserve intact the life of the offspring, and consequently possible to bring to it spiritual and even temporal relief.

V. Coming now to the practice or method of this operation, let it be understood above all that the first and primary consideration is to be absolutely certain of the death of the mother. This certainty is not difficult to achieve in those illnesses which pass through a crisis, because before the patient dies, there appear agonies or other manifestations which indicate the approach of death. Nevertheless, some time should be allowed to elapse during which various tests may be made in order to be even more certain on the point. Such will be to observe whether heat is being lost, such that the person becomes cold, whether respiration has entirely ceased together with all movement on the part of the mouth, nostrils, abdomen and chest, whether a pulse can be perceived in the wrists, temples or left side of the chest. Under such circumstances the patient may be considered as being dead. Other precautions may be taken which will serve as confirmation of the death. These are to place on the abdomen and chest a glass of water and observe if any movement can be detected. Also one can place between the lips or in the nostrils a little cotton fiber or a fine feather, and notice if there is any motion on the part of the delicate fibrils. If it appears that all these observations denote a dead body, it may be taken as such and the preparation for the actual operation begun.

But if the death should occur suddenly, as in apoplexy, epilepsy, syncope or similar conditions, then it is necessary to wait a longer time and make the tests with much care and thoroughness, for in such cases it has happened that those assisting have been mistaken, believing one who was alive to be a corpse. Father Rodriguez estimates an adequate time to be one hour, so that if as a result of the above-mentioned tests and observations the pregnant woman seems to be dead, and one hour has elapsed, she may be considered really a corpse and the operation may be begun. Nevertheless, in sudden deaths there is less danger that the infant will die than in those which follow a prolonged illness, because the long duration of the latter causes the fluids which must nourish the fetus to become corrupted, and consequently it becomes debilitated and sickly. On the other hand, in the former type the fetus may remain in a healthy condition since the factors which operate to kill the mother do not have time to corrupt the humors and weaken the child. Therefore, it seems safest and for practical purposes best to follow the opinion of the illustrious Tegjos, who feels that in order to be able to reach a wise decision in the case of sudden deaths, it is necessary to allow a period of at least two additional hours to elapse. Since the danger that the offspring will die is not so great when the mother dies suddenly as when she succumbs to a prolonged illness (as has been explained above), if the former occurs the extra time mentioned should be spent in putting into effect the precautions and tests which we stated should be practiced in the case of those who die from a disease in order to be quite certain of the death. In addition to the tests described previously, the following ones should be performed on those who die suddenly. Between the nail and flesh of the fingers and toes, pins should be introduced and it should be observed whether or not any movement is made. If none is noticed, the operation may be commenced, but with care to begin and continue the incisions with such gentleness that the first scarification shall not penetrate more than the cutis. Subsequently the cut may be made somewhat deeper. This is in order that if life were present but dormant, the action of cutting would be such that the pain of the incisions would awaken it. Whoever operates should observe these precautions and should also see to it that the persons interested in the deceased be present while the tests are being made, in order that they may be assured of the death of the individual. This is for two weighty reasons. The first is that by the testimony of many persons the wisdom of the procedure may be established. The second is in order that these persons may never say the operation was undertaken without having been certain of the death. But observe closely that, after the certainty of death has been fully established by means of the precautions exercised to this end, if any of the persons mentioned, or anyone else, oppose the performance of the operation, they may be obliged by any of the ecclesiastical or secular courts to withdraw their opposition. The same power may be exercised with respect to any physician, or other intelligent person, who objects to or resists the performance of this operation unless he advances some very serious and legitimate grounds for not undertaking it.

(To Be Continued)

CLINICAL NOTES AND CASE REPORTS

THROMBO-ANGIITIS OBLITERANS IN A WOMAN*

By Albert H. Elliot, M.D.
Santa Barbara

IT is generally conceded that the female sex is but rarely affected by thrombo-angiitis obliterans. Herrell and Allen[1] have recently described an acceptable instance and, in discussing the incidence of this disorder in women as seen at the Mayo Clinic, state that this has been the only case encountered among 350 patients with Buerger's disease admitted to the Clinic since 1932. Horton and Brown[1] had previously reviewed 700 cases seen at the Clinic up to that year, of which only ten occurred in women. Of a total of 1,050 patients with Buerger's disease, therefore, the incidence in women was 0.9 per cent. As Herrell and Allen indicate, of the total number of twenty cases reported in the literature up to this year, the diagnosis in some is open to doubt. Because of its exceeding rarity it is worth while to describe the following carefully studied instance of thrombo-angiitis obliterans occurring in a female.

REPORT OF CASE

A white, married housewife, forty years of age, was first seen on June 15, 1936, complaining of a painful ulcer of the foot.

Her health had been excellent up to the onset of the present disturbance, and no history of preceding infectious or metabolic diseases could be elicited. The familial background was good, none of the members having been affected by vascular disease. Her ancestors were of English and Scottish blood.

The patient had one normal pregnancy eighteen years ago. Menstruation has been normal.

The patient has never ingested rye bread, nor has she consumed ergot or any of its derivatives. She has, however, smoked twenty cigarettes daily for at least fifteen years.

One year ago the patient had applied lysol to her feet because of dermophytosis. The resultant burns had healed extremely slowly. Six months later a painful ulcer appeared on the right first toe. She remained in bed for several months because of pain in the foot on walking, and the lesion gradually healed.

Four months ago a similar ulcer appeared on the tip of the left great toe. It was extremely painful, particularly at night, and the patient was accustomed to flex the leg sharply and place her foot under the opposite thigh for relief. Walking became impossible because of pain. The toe nail was removed by a doctor because of supposed infection. The condition of the ulcer remained unchanged following this procedure; but the foot had become somewhat swollen, and the patient noticed bluish discoloration of the toes when the leg was dependent.

Three months ago the finger nail of the right fourth finger was removed because of an infection. The nail is growing in slowly, but the fingers of this hand are frequently noted to be a reddish blue when cold. She believes that the growth of the finger nails is not retarded.

The results of physical examination, aside from the vascular system, were not remarkable. Blood pressure was 130 millimeters systolic and 92 millimeters diastolic. Chemical and microscopic examination of the blood and urine were noninformative. The Kolmer and Kahn reactions of the blood were negative. Viscosity of the blood serum was not increased.

Fig. 1.—Arteriogram of the right lower leg and foot.

On examination of the extremities, the fingers of the right hand were found to be rather cold and pink-blue in color. The skin was flexible; there was no atrophy of the finger pads. A deformed nail was growing on the right fourth finger. The radial pulse was extremely feeble and no ulnar pulse was palpable. Pulses at the left wrist were strong. Brachial pulses were good. The oscillmetric index was 1.5 at each wrist. Reactive hyperemia of the warmed hand, following deflation of a blood-pressure cuff, was apparent in the right palm in seven seconds; in the third, fourth, and fifth fingers, in ten seconds; and in the first and second fingers, in sixteen seconds. In the left hand, hyperemia of the palm was apparent in five seconds; of the fourth and fifth fingers in seven seconds; of the first, second, and third fingers, in eight seconds. (Normal is two to three seconds.) As tested by Allen's method, the right ulnar artery was apparently occluded.

There was pronounced discoloration of both feet on dependency, and rapid blanching on elevation. The left first toe nail was absent and the nail-bed was covered with purulent exudate. There was slight swelling over the dorsum of the foot. At the base of the right first toe on on the medial aspect was a circular scar.

Good pulsations were felt over both femoral and popliteal arteries. Posterior tibial pulse of each foot was extremely faint. No pulse was felt in the dorsalis pedis arteries. The oscillometric indices were as follows:

	Left	Right
Above knee	3.5	3.5
Below knee	3.0	3.5
Ankle	1.0	0.75
Foot	0.0	0.0

Reactive hyperemia, or "flushing,"[2] appeared evenly in the toes of the right foot in twenty seconds; in those of the left, in twenty-five seconds. (Normal is four to six seconds.)

The patient was placed in a room maintained at a constant temperature of 18.2 degrees centigrade. Following the intravenous administration of typhoid vaccine, the temperature of the toes of the right foot rose from 19.6 to 28.6 degrees centigrade, failing to reach forehead tempera-

* From the Peripheral Vascular Clinic of the Cottage Hospital, Santa Barbara.

ture by five degrees. Temperature of the toes of the left foot rose from 20.6 to 27.6 degrees centigrade. The temperature response following vasodilatation, resulting from procain block of the tibial nerves and application of heat to the trunk, gave substantially similar results.

An arteriogram (Fig. 1) of the right lower leg and foot shows absence of filling of the posterior tibial artery. The anterior tibial vessel is extremely narrowed and cannot be traced below the lower third of the leg. The fine cobweb-like collateral circulation is typical of that seen in thrombo-angiitis obliterans below the level of occlusion of the major trunks.

COMMENT

The clinical picture of widespread vascular disturbance affecting the four extremities is, in this patient, dependent both upon organic arterial occlusion and intense vascular spasm. There is no evidence of arteriosclerotic vascular disease, all accessible vessels being nontortuous and soft. Etiologic factors such as acute infection, syphilis, poisoning from ergot or ergotamin tartrate, may be excluded. The diagnosis of thrombo-angiitis obliterans seems assured. The further course of the malady is also substantial confirmatory evidence. Following a series of intravenous typhoid injections, and cessation of smoking, pain rapidly subsided and the ulcer has completely healed. The prolonged use of tobacco by this patient is fully in accord with present conceptions regarding its important rôle in this disease, and it is of interest that the patient reported by Herrell and Allen was, likewise, a confirmed smoker.

SUMMARY

The occurrence of widespread thrombo-angiitis obliterans in a white, nonsemitic female, forty years of age, is described. The results of a detailed study of the peripheral circulation which confirmed the diagnosis are given. This is the twenty-second instance of its kind to be reported.

Cottage Hospital.

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PARALDEHYD

EFFECTS OF AN OVERDOSE ON A PATIENT IN LABOR

By Samuel Hanson, M.D.
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PARALDEHYD is rapidly gaining in popularity as a sedative in a great variety of medical and surgical conditions; the toxicology of this drug should, therefore, be of general interest. The following case presented an opportunity to study the toxic effects of an overdose of the drug.

REPORT OF CASE

Mrs. I. P., a primipara, age nineteen, entered a local hospital in labor at term, on November 11, at 11:40 p. m. The course of her pregnancy was uneventful. Her pains began at 3 p. m.

The findings on general physical examination at the time of admission were negative. The presentation was right occiput transverse. The dilatation was three centimeters, with semi-effacement, and station + 1. The membranes were intact.

Morphin sulphate, grain one-fourth, was given at 12:30 a. m. on November 12.

The patient continued to have weak pains through the night, occurring ten to fifteen minutes apart and lasting twenty to thirty seconds. Rectal examination at 5:50 a. m. showed little change in the progress of labor. Morphin sulphate, grain one-fourth, was repeated at 6:20 a. m.

The pains increased in strength and frequency. Rectal examination at 10:40 a. m. showed an increase in the dilatation to five centimeters, with a slight increase in effacement.

Morphin sulphate, grain one-sixth (H), and paraldehyd ʒiv, with benzyl alcohol 1.5 cubic centimeter per rectum, were ordered to be given. ʒiv was given by mistake. The patient's weight was 120½ pounds.

The special nurse in attendance was unfamiliar with the action of paraldehyd, and failed to observe anything unusual in the condition of the patient until later in the afternoon. According to the nurse, the patient was soundly asleep at 11:05 a. m., ten minutes following the administration of the drug.

At 4:30 p. m. the nurse reported that the patient's temperature was 102 degrees and that her pulse was weak and rapid. At this time I found the patient in a state of absolute unconsciousness. The pupils were partly dilated; the right pupil was fixed, the left reacted very slightly and sluggishly. There was no movement of the eyeballs. The face was flushed, and the skin was warm and moist; there was no cyanosis. The tongue had fallen back against the pharynx, seriously obstructing respiration. The breathing, however, became deep and regular with a rate of 32, as soon as an airway was introduced. There was a strong odor of paraldehyd on the breath. The pulse was weak and irregular, its rate 180 to 190. The blood pressure was 80/0. The activity of the uterus was completely abolished. The fetal heart rate was too rapid to count. The extremities were completely relaxed. All deep and superficial reflexes were absent.

Adrenalin, ephedrin, caffein, and coramin were given in rapid succession. One thousand cubic centimeters of 10 per cent glucose solution was given intravenously at 5:50 p. m.

The blood pressure had risen to 100/60, but the pulse rate remained unchanged.

Twenty-two ounces of urine were obtained by catheterization at 6:50 p. m., the patient having previously been catheterized at 3:15 p. m. The specimen showed a faint trace of albumen, one or two red blood cells, and a few pus cells per high dry field.

Twelve cubic centimeters of digifolin was given in divided doses, beginning at 7:45 p. m., and the ephedrin caffein, and coramin were repeated, approximately at four-hour intervals. At 8:15 p. m., the temperature had risen to 102.8 degrees. The pulse and respiration were unchanged. The blood pressure continued to drop periodically to 85. At 9 p. m. the bladder emptied spontaneously during an attempted catheterization. At 11 p. m. strabismus and movements of the eyeballs was observed, together with a return of the normal pupillary reflex. There was also a slight return of general muscle tonus. The patellar and achilles reflexes were still absent. A well-sustained bilateral ankle clonus was now readily elicited.

One thousand cubic centimeters of 10 per cent glucose solution was repeated at 11:35 p. m. An occasional cough, slight voluntary movements, and weak uterine contractions began to appear at about 1:00 a. m. on November 13. At 2:30 a. m. there was an involuntary defecation.

The uterine contractions gradually increased in strength and frequency, and the patient became very restless. At 5 a. m. weak bearing-down efforts were noticed. One thousand cubic centimeters of 10 per cent glucose solution was again given at 6 a. m. The pulse rate gradually slowed, but the blood pressure remained unstable, with a strong tendency to drop below 90. At 7 a. m. the temperature was 100.8 degrees, pulse 126, and respiration 36.

Rectal examination at 8 a. m. showed dilatation complete, station + 3, rotation O. D. 90 degrees, F. H. T. 144.

The uterine contractions and bearing-down efforts continued to increase. At 9:10 a. m. the membranes ruptured spontaneously. Rectal examination at this time showed station + 3 with rotation of O. D. 45 degrees. The

patient was delivered by mid-forceps at 9:48 a. m., without anesthesia. She was still unconscious, and so restless and uncontrollable that it was utterly impossible to maintain an aseptic technique. The pulse rate immediately after delivery was only 76. The uterus contracted promptly and firmly. The postpartum blood loss was slight. The child was in good condition and cried immediately. Its color and breathing were good from the beginning. Birth weight was 6 pounds 12 ounces.

The mother's pulse rate dropped to as low as 56 during the first twenty-four hours postpartum (digitalis effect?). She gradually regained consciousness, but was not well oriented or fully rational until late in the evening, about thirty-six hours after the administration of the drug. The subsequent course was uneventful.

COMMENT

The essential findings brought out in the foregoing case of paraldehyd poisoning may be summarized as follows:

1. There was a total loss of consciousness and a delay in its recovery, until long after the return of the reflexes, muscle tonus, and voluntary movements.

2. There was an alarming depression of the circulatory system, as indicated by the tachycardia, hypotension, and accelerated fetal heart rate.

3. The respiratory system was powerfully stimulated, as shown by the acceleration and marked increase in depth of respiration.

4. Renal activity was apparently unaffected, judging by the voluminous urinary output, and the essentially negative report on the specimen of urine examined.

5. Uterine activity was completely abolished for over twelve hours.

6. The survival and complete recovery of the patient, following the administration of a quantity of paraldehyd eight times in excess of the average dose, confirms the view generally held that there is a wide margin of safety in the therapeutic use of the drug.

1009 Medico-Dental Building.

GIVE YOUR KNOWLEDGE A CHANCE

By Alanson Weeks, M.D.
AND
G. D. Delprat, M.D.
San Francisco

IN the postoperative state, there are usually marked changes in certain relatively-fixed values in the blood. The acid-base balance is profoundly affected by the various factors, anesthesia, starvation, toxemia and others, as is also the blood-sugar concentration. A change to the acid side in the body is readily shown by the presence of acetone and diacetic acid in the urine, and daily tests should always be made for the presence of these substances. Fortunately, these tests are of great simplicity, but they are without question the most valuable that can be made in the postoperative state. Blood chlorid determinations are probably second in importance—a deficiency of chlorid, whether by vomiting, continuous gastric lavage or sweating, is invariably found in patients with ileus and distention, and these symptoms are greatly alleviated by restoring the blood chlorid value. The need of sugar in the postoperative state is not indicated by blood sugar determination; in fact the patient in marked acidosis and, therefore, in need of sugar, may have a blood sugar of 140 or more. This, however, is not a contraindication to the administration of intravenous glucose. The determination of the blood NPN and creatinine is of value as indicating how far the patient has slipped from normal; these values may return.

The following three cases are of interest in showing what symptoms may be presented when the blood chemistry "goes awry."

REPORT OF CASES

Case 1.—Male, age thirty, was operated on, in Southern Oregon, two weeks previously for perforated gastric ulcer. He had a stormy time for the first four or five days, and then improved. Details of the postoperative treatment are not available, but, after the first five days, he was "fine." During the last few days he began to become distended and commenced to vomit. The accompanying nurse said the vomiting was fecal.

A diagnosis of intestinal obstruction was made, and the patient advised that immediate operation would be necessary. His brother, who is a doctor, refused the operative procedure, and decided to send him to San Francisco. On arrival, the patient was in shock. He was perspiring profusely; temperature, subnormal; systolic blood pressure, 70; tongue, dry; abdomen, soft and not distended; red blood cells, 4,900,000; hemoglobin, 90; white blood cells, 14,700; polymorphonuclears, 75; blood chlorid, 258; N.P.N., 92; creatinin, 9; sugar, 115.

Treatment consisted of glucose intravenously, continuous gastric lavage, hypertonic salt solution, eserine hydrochlorid 1/100 b.i.d.

The above treatment was continued during the next six days, by which time the patient had practically completely recovered. There is no doubt but that these symptoms were directly the result of disturbances in the body chemistry, which were discovered immediately by the house staff at St. Luke's Hospital on the patient's admission, and the simple proper treatment was instituted at once, with a prompt recovery.

* * *

Case 2.—Less spectacular is the following account: Patient, aged eight, is operated for a perforated gangrenous appendicitis with drainage. For the first several days the child showed a marked toxic reaction, such as could well be expected. She was treated with hot compresses, glucose intravenously twice daily, and eserin hydrochlorid hypodermically three times daily and continuous rectal drip. Five days later the above treatment was considered no longer necessary. The temperature remained to around one hundred, and a soft diet was permitted. There continued to be considerable drainage from the wound, although the drain had been worked out a little each day, and removed entirely on the third day.

Fourteen days after operation the patient's condition is as follows: Temperature between normal and one hundred; abdomen is soft; drainage has practically ceased; there is some soreness in the right flank, but the child is playing around in the bed; she is on a soft diet, which apparently is adequate.

On the fifteenth day the child is nauseated, when she wakes up and has some abdominal distention. About noontime, she vomits her lunch and soon thereafter some bile-stained fluid. The child looks very different from the previous day, is listless and crying. Peristalsis heard, but not very actively. Intestinal obstruction is seriously considered. Analysis of the urine at this time shows unexpectedly the presence of much acetone and diacetic acid (obviously the diet had been below maintenance in carbohydrates), and all these symptoms were relieved in a few hours with intravenous glucose, promptly to normal with adequate administration of fluid either as sodium chlorid or glucose solutions.

This occurred in the Children's Hospital, with all the patient's doctors seeing her daily, and all feeling that there was no longer any necessity of having the urine examined daily for diacetic acid and acetone as is our custom for some days following operations.

Case 3.—The following record is given to show how easy it is for medical men to be influenced too easily by the opinion of another doctor, who had seen the patient before, and to continue along the same line of thought without a proper examination.

The patient, B, a young woman thirty-five years of age, was in a hotel in the south, January 12. She attended an ordinarily happy party with the ordinary things to eat and drink, and returned to her hotel room not long after midnight, when she commenced to vomit. She vomited so incessantly that within a day she developed hemorrhages under her conjunctivae, and naturally developed pain in the upper abdomen. The hotel doctor saw her and was told by the patient that she had had a diagnosis of gall-bladder disease made some months before, at her home. She did not receive very much treatment, and returned to San Francisco to a hospital on January 15, having almost continuous vomiting and being evidently very sick. She was told by the medical man in the south that she was suffering from gall-bladder disease, and should have an operation for this condition. She called her regular physician who found, of course, the painful upper abdomen. Continuing the gall bladder idea he asked one of us, on January 18, if we would see her from a surgical point of view, as it looked to him as though she would need an operation upon her gall bladder.

On talking to the doctor, over the telephone and listening to the story, he was requested to have the complete blood chemistry examinations done, with the complete blood counts and urine analysis. On meeting the doctor in consultation it was discovered that the nurse had procured no urine for examination since the patient arrived in the hospital, and the patient, when seen by us, was unable to pass any urine, the excuse being given, as before, that the patient always went to the bathroom herself.

The report of the blood chemistry then came in as follows:

Chlorids, 528 mgms. per cent; NPN, 89 mgms. per cent; blood sugar, 147 mgms. per cent.

This definitely showed kidney damage, but even without the blood chemistry being done, as soon as any urine could be procured it was found to be almost pure blood, and the patient had no surgical condition of the abdomen.

The patient gradually, day by day, increased the amount of urine passed and slowly cleared up so that by the 28th of January the NPN was normal. Any treatment she received had very little to do with this happy result; but if even a simple and always expected examination of urine on arrival at the hospital had been done, her various doctors would have been saved much embarrassment.

COMMENT

These are rather outstanding evidences of how any one of us, through carelessness at any time, can fail to make a simple, easy diagnosis because we have not used the knowledge we actually have, have been careless in our observation, or have not given proper attention to detail. Our laboratory men offer us a great deal; let us pay them by using this knowledge.

It has been suggested to us that the title of this paper should have been: "Give Your Patients a Chance."

384 Post Street.

A PORTABLE OXYGEN UNIT

By Frank C. Reynolds, M.D.
Chico

OXYGEN therapy in pneumonia is now a standard procedure. Its indications and the results to be anticipated are well known. In small communities, however, the necessity of expensive equipment has greatly limited its use. A portable oxygen unit was devised by the author that could be easily assembled anywhere, and made quickly available in an emergency.

Fig. 1.—A portable oxygen unit.

Commercial oxygen is both economical and easily procurable, while medical oxygen is not. The large tanks contain approximately 6,230 liters, sufficient to maintain a rate of flow of eight liters per minute for about twelve hours. A standard welder's oxygen-regulating valve, with two gauges, was found satisfactory if the outlet is provided with a pin-hole opening to maintain a constant rate of flow. Calibration of this valve is simple, as a flow of 20 cubic feet per hour is equivalent to nine liters per minute.

To provide the necessary cooling to compensate for the increased humidity in bubbling the oxygen through water, a small cork-lined ice chest of the portable type was used. Eight coils of three-eighths inch copper tubing were soldered to the inside of this chest, leaving sufficient room in the center for approximately twenty pounds of cracked ice, which provides adequate cooling of the oxygen and greatly increases the comfort to the patient.

Two mason jars are attached to the side of this chest at the outlet of the coil. The first contains water, so the oxygen may pick up moisture as it passes through. The second one is dry and catches any excess vapor, thus preventing a fine spray from striking the patient within the tent.

The tent, constructed to fit over the head and shoulders of the patient, is 18 inches square at the base. The base of the frame consists of three-sixteenths inch iron rods, except at the front, and supports arch from each corner, to meet in the center at a height of 20 inches. It is here that the inlet tube is placed. This size has been found to be quite satisfactory. The frame is covered with 10-ounce canvas, treated with waterproof canvas dressing. This covering extends 14 inches from the frame on each side and tapers out 18 inches from the front in order to be long enough to tuck under the patient or fastened to the bed when restraint is necessary. Celluloid windows, 7 x 10 inches, are placed in both sides and the front, to provide light.

The value of this unit lies in its simplicity, and that it can be quickly assembled where the larger apparatus is not available.

Third and Salem Streets.

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

TUBERCULOUS CERVICAL LYMPHADENITIS

1. ETIOLOGY AND DIAGNOSIS

WILLIAM C. VOORSANGER, M. D. (490 Post Street, San Francisco).—Tuberculosis of the lymphatic system or nodes has engaged the attention of the medical profession for centuries. It used to be called scrofula (from the Latin scrofa, "a brood-sow"), and in the Middle Ages it was called "King's Evil," because, supposedly, it could be cured by the king's touch. Virchow was perhaps the first pathologist to recognize a really tuberculous or nodular form (of tuberculosis), of which tubercle was the unit, although he was mistaken in his conception of the true nature of the disease. Villemin was the first to advance the theory of the specific origin and infectious nature of tuberculosis even before the discovery of the bacillus by Koch in 1882.

Etiology.—During the past quarter century we have seen an astounding decrease in the incidence of lymph-node tuberculosis, in fact of all non-pulmonary forms. The reason is, of course, clear. There are three forms of the tubercle bacillus—the human, the bovine and the avian. All pulmonary tuberculosis is caused by the human form—all non-pulmonary, particularly lymph-node involvement, by the bovine; although some authors, notably l'Espérance, believe that the avian bacillus may also produce lesions in the human. With the definite knowledge that glandular tuberculosis was of bovine origin, pasteurization of milk became the first forward step as a means of keeping the bovine bacillus out of the lymphatic systems of babies and young children. Koch, in spite of his great contribution in discovering the cause of tuberculosis and thus clarifying the etiology of the disease, and making possible all of our advances of the past fifty years, nearly upset his own work by trying to prove, in 1900, that the bovine bacillus could not cause human tuberculosis. Fortunately, this was disproven, and pasteurization of milk continued. Other factors in causing decrease in the incidence of glandular tuberculosis were the testing and elimination of tuberculous cows, the more general and early removal of tonsils and adenoids, the improved methods of living, particularly the open air care of our children, the isolation, as far as possible, of open cases of tuberculosis, and the increased resistance of the white race to tuberculosis—commonly called "the white race's immunity," acquired through generations of infection with the tubercle bacillus. The almost complete disappearance of lympho-node tuberculosis in our communities through the above methods proves that the existence of these evils were the etiological factors in producing the disease.

Thirty years ago it was common to see children and later adults with "swollen glands." It was also common to see many badly-scarred necks, the sites of surgical removal of these diseased glands. True, some of these glands were inflammatory, due to diseased tonsils and adenoids, but most were due to tuberculosis. The common theory, at the beginning of the century, was that the tubercle bacillus entered the body through the respiratory tract, by aspiration or through the lymphatics by way of the intestinal tract or through the bowels. The epoch-making work in 1900 of Benda on thoracic duct tuberculosis is well known, but in later years it has been displaced by other theories. We then asserted that the bacillus remained locked up in the bronchial or hilar glands until some inciting cause, such as pneumonia, influenza, or lowered resistance caused the bacillus to leave the glands, enter the lungs and produce pulmonary tuberculosis. These theories have changed somewhat since we know more regarding childhood tuberculosis (glandular form as distinguished from massive destructive tuberculosis in the adult), and we now believe that first infection in the parenchyma of the lung may occur directly.

The decrease in the death rate from tuberculosis in general in the past twenty-five years from a high of 325 per 1,000,000 to 58 is well known. The main reduction has taken place in the age bracket, 1-10 years, and it was also in that age bracket where cervical lymphadenitis was most common. Its incidence, thanks to our now well-known preventive measures, is markedly decreased throughout the country and in certain urban communities almost nil. At the Massachusetts General Hospital the figure for the year 1931 showed only 84 new admissions of lymph-node tuberculosis as against 110 in 1925. The picture in certain outlying districts where preventive measures have fallen down is not so bright. In the southern part of California, where the Mexican population percentage is high, cervical lymphadenitis, tuberculous peritonitis and various forms of joint tuberculosis are again much in evidence, particularly in children. In certain northern counties, where raising cattle is the principal industry, I am reliably informed that bovine tuberculosis in children is again rearing its head. So the situation in the south is probably only partly due to the low resistance of Mexican children, but primarily caused, as in these northern counties, by direct infection from uncontrolled tuberculous herds. Pasteurization of milk where carried out properly should prevent bovine infection. Complete elimination of tuberculous cattle, as it has been done in most states, is an absolute preventive. California is one of the few states in the Union not demanding compulsory eradication of tuberculous cows from dairy herds. This we hope to see

remedied in the near future. Since milk and milk-products from tuberculous cows are probably the principal etiological factors in producing lymph-node tuberculosis, complete disappearance of this condition should be accomplished by the single preventive of raising cattle free of the disease.

In England there are nearly two thousand human deaths annually from bovine tuberculosis, and an incidence of four thousand new cases of bovine infection. In Ireland, "where cows are not reported unless actively sick," the situation is far worse ("Tuberculosis of The Lymphatic System," by Richard H. Miller, 1934). This country, except in isolated regions, has been fairly well purged of bovine infection in humans. We hope to keep it so!

As stated above, the direct cause of lymph-node tuberculosis is the bacillus tuberculosis bovinus which is different from the human type morphologically and culturally. It is "shorter, thicker and more regular in size, and grows in various culture media scantier than the human type." The scope of this discussion prevents further elaboration of the work done in recent years on the tubercle bacillus and its fractions by Sabin, Andersen and others.

Diagnosis.—Miller states: "The importance of tuberculosis of the lymph-nodes depends on the facts that (1) from them tubercle bacilli may be carried elsewhere in the body by lymph vessels or the blood stream and (2) they may rupture and pour caseous pus, carrying tubercle bacilli into the bronchi or gastro-intestinal tract!"

The lymph-nodes of the neck consist of two main groups, the superficial and the deep. The superficial are occipital, mastoid, parotic or pre-auricular, facial, submaxillary, submental and retropharyngeal. We also have supraclavicular glands. The superficial nodes drain into the deep or carotid or substerno-mastoid nodes, "which consist of a group of fifteen to thirty nodes lying behind the angle of the jaw, anterior to and behind the sterno-mastoid muscle, and extending down to about where the omohyoid muscle crosses under the sterno-mastoid. In addition there is another small group lying behind the posterior upper portion of the sterno-mastoid muscle and called the external group." Any of the above groups may be affected by tuberculosis actively or inactively. In pulmonary tuberculosis we can often palpate glands in the neck, but these nodes remain stationary or recede completely with improvement of the general disease. They seldom show active disease. Active infection in cervical glands is most often primary.

Tuberculous infection of cervical nodes is most frequently seen in the carotid group, located just behind and below the angle of the jaw. Next in frequency are the submaxillary and the supraclavicular. One sometimes sees a "generalized tuberculous lymphadenitis," or enlarged lymph-nodes all over the body. When a lymph-node is first infected it enlarges slowly, its center softens and it becomes caseous, and then the infection travels from gland to gland until a chain of a dozen or more may be involved. One of our objections to surgery on cervical glands, when these were commonly seen, was that often, after removal of a chain of glands, a second chain became infected and broke down. This was no doubt due to drainage of caseous material from one chain to another. Nodes may become enlarged and caseous, but never grow to great size, and the process may calcify and heal, or absorption may take place early and only small nodular masses remain, or they may form larger knotted masses and break down. When a mass forms it often softens, breaks down, and pus and caseous material pour out. Again our scope will not permit of a detailed pathological discussion of all the phases of healing, calcification, coalescence, or caseation of tuberculous lymph-nodes. The diagnosis of the condition, although simply made, depends nevertheless upon an understanding of the underlying pathology.

When a cervical node of tuberculous origin forms, it is usually painless but worries the patient considerably. It gradually enlarges, also without pain, causing some impaired motion of the neck. The constant twisting of the neck may influence the mass and then some pain is felt. If the mass softens and becomes secondarily infected with pyogenic organisms, pain will be present. One important diagnostic feature not often present is a mild rise in afternoon temperature. In childhood tuberculosis, always of glandular origin, we are first directed to our diagnosis by afternoon rises in temperature. Sometimes the patient feels ill and tired, as in the pulmonary forms, but most often he has no general symptoms. Although symptoms are often absent, a mass in one's neck gives the patient concern, and must be diagnosed, particularly if it has a tendency to enlarge. A skin test with Tuberculin O.T. or P.P.D., if definitely positive, will show at least tuberculosis infection, not necessarily active disease. Biopsy is, of course, a sure diagnostic test. Removal of a node and finding tubercle proves our case, but the removal must be carefully performed to avoid spread of infection. The blood picture is of some help in making a diagnosis but not too characteristic. The white count is low with an increase in lymphocytes. Cunningham and Tompkins (quoted by Miller), state: "(1) Lymph-node tuberculosis gives a higher monocyte and lower lymphocyte count than is indicated by the grade of clinical severity, and (2) children tend to show higher monocyte and lower lymphocyte values than are indicated by the grade of clinical severity." The sedimentation rate, unless pulmonary tuberculosis is present, is not increased. Briefly then, enlarged lymph-nodes in the neck, particularly in young people, which are painless, break down and enlarge slowly are usually tuberculous. We must differentiate a simple lymphadenitis usually of inflammatory origin, also seldom seen, since early removal of enlarged tonsils has become a general custom. The lympho blastoma group consisting of Hodgkin's disease, lymphatic leukemia, etc., lymphosarcoma, malignancy, actinomycosis, syphilis, tumors of the parotid glands and neurofibroma are conditions of more or less frequency occurring in the cervical glands, and to be differentiated from tuberculosis in making a diagnosis. Hodgkin's disease, in its early stage, may be confused with tuberculosis, and

a generalized tuberculous adenitis with large cervical masses may be taken for Hodgkin's. The differentiation is not always easy even under the microscope. Some authors have described a Hodgkin's of tuberculous origin. The differentiation from syphilis, lymphosarcoma and malignancy should not be difficult.

In conclusion let me stress this important fact: That primary tuberculous cervical lymphadenitis as a primary disease can be almost completely eradicated, as it already has been materially reduced in incidence by the simple procedure of acquiring dairy herds free from tuberculous infection. If this is done there will be no need for diagnostic criteria for a disease which no longer exists.

* * *

II. GLANDULAR TUBERCULOSIS

F. M. Pottenger, M.D. (Pottenger Sanatorium, Monrovia).—Today, tuberculosis of the lymph glands is seldom seen. Since people live more hygienically, and patients are treated with greater care, all of the complications of this disease have been reduced in frequency and severity.

The reduction in the amount of glandular tuberculosis may be partly due to this same cause. On the other hand, it is partly due to the improvement in milk supply. It is generally admitted by pathologists that many of the nonpulmonary tuberculous lesions are caused by the bovine bacillus which is transmitted through milk; and since the danger of infection has been removed to so great a degree from milk, all of these types of the disease are disappearing.

Tuberculosis of the glands of the submaxillary group is the glandular infection which most commonly assumes clinical importance. The submental and posterior cervical are less commonly, and the axillary and inguinal rarely, involved. Where submental glands are involved in acute inflammation it is most apt to be of a nontuberculous infection, the origin of which lies in the oral cavity.

The symptomatology of acute infection of the cervical glands and of tuberculous infection is very similar. Both show swelling, which is often painful in the early stages, before softening occurs. Swelling and pain are practically always present in the nontuberculous gland. Fever may be present in either instance.

Tuberculosis of the anterior cervical glands usually shows slow swelling, is at least comparatively painless, and sometimes wholly so. Usually more than one gland is involved. When several glands are involved, they show different degrees of enlargement. As time goes on the skin over the tuberculous gland usually becomes adherent. Caseation and rupture come on slowly after the gland has been enlarged for some time. In acute infection suppuration usually occurs much more quickly.

It may be difficult to find tubercle bacilli in the pus from the tuberculous gland. As a rule, however, if concentration methods are used, they will be found.

Tuberculous glands must also be differentiated from lymph granulomata. The latter do not become adherent to the skin, nor do the glands rupture and form fistulous tracts.

It must be remembered that tuberculosis of the lymph glands can come either as a complication of tuberculous disease elsewhere in the body, especially that in the lung, or it can come as a separate organ involvement. In both instances the source of infection is usually by way of the blood stream, the infection of the gland taking place in the same way that a bone, joint or kidney becomes infected.

Pathologists, however, recognize the possibility of infection through the mucous membrane of the oral cavity by bacilli which come from the lung, and lie in contact with the mucous membrane of the mouth and throat.

This infection is similar to such infections in the larynx and intestinal tract which are recognized as taking place through contact. It is probable, however, that this method of infection is less frequent than that by way of the blood stream.

* * *

III. ROENTGEN RADIATION THERAPY

Alfred C. Siefert, M.D. (411 Thirtieth Street, Oakland).—Twenty-five years ago the treatment of tuberculous cervical lymphadenitis was still overwhelmingly surgical, although as early as 1905 roentgen-radiation therapy was being advocated by many of the pioneer roentgen therapists at home and abroad. In this country we may name, in this connection, Williams and Pusey, Pfahler, Rodman, and others, while abroad the names of Holzknecht, Kienboeck, and Wetterer, also Bergonie, and a little later Bargon and Béclère and many others, who advocated and praised the efficacy of roentgen therapy.

The most complete individual discussion which the writer could find in the literature on the subject in hand was still to be found in the third edition of Wetterer's "Handbuch der Roentgen und Radium Therapie," 1920. Since then one may find a number of casual references to the matter in the journalistic literature.

While surgery is entirely efficient, as well as sufficient, when the affected glands are still small, few in number, and superficially located so that the disease can be entirely removed, it ceases to be efficient when the affected glands are numerous and the disease is advanced, and the deeper cervical glands are affected, or when the glands have coalesced into conglomerations of tuberculous lymphomata, or have broken down to form pus and tuberculous fistulae, such as one sees even in this day and age all too frequently. The cosmetic results in such cases are usually poor with surgery, and repeated surgical intervention becomes necessary and increasingly difficult, and, furthermore, there is no assurance that the disease can be completely controlled. In contrast to this, it may be argued with justification that, even in advanced and neglected cases, roentgen irradiation offers, in a very high percentage of such cases, a complete cure with much better cosmetic results. The cosmetic effects are, of course, especially gratifying when the patient can be taken in hand at an early stage of the disease, roentgentherapeutically.

From an immunological point of view, one may state that the roentgen treatment is much more satisfactory than any other, for the reason that the body forces are mobilized to combat the disease and, in so doing, immune substances are created of considerable value. It is the consensus of well founded opinion and experience that the tubercle bacillus is not primarily affected by roentgen radiation in therapeutic doses. It is rather the necrobiosis of radiated tuberculous tissue which causes the liberation of tuberculo-toxins which, in turn, stimulate the formation of immune substances in the organism, promote phagocytosis, and induce proliferation of connective tissue. The ultimate result is, accordingly, the gradual resorption of the diseased tissue and its replacement by fibrous tissue, or, in rarer instances, the deposit of lime salts in the diseased tissue, such as is frequently observed in childhood tuberculosis of the lungs, when both the primary lesion, and the secondary hilum and mediastinal lymph glands have undergone spontaneous healing. In the more-advanced cases of tuberculous cervical lymphadenitis, the first action of irradiation is upon the acute periadenitis, with the result that the chronically diseased glands become again discreet and isolated, after having formed a coalescence of involved glands. Similarly, glands that have broken down with the formation of tuberculous fistulae, may be so influenced by irradiation so as to bring about a cessation of discharge and a closure of the discharging sinuses.

The further discussion of these topics will be resumed below.

At this time a few words may be introduced concerning objections which formerly might have been brought against roentgen therapy and which still are occasionally mentioned. These objections are, notably, undesirable effects on the radiated skin, such as atrophy of its glands and appendages, and subsequently the formation of unsightly telangectases and occasionally even more serious late sequelae. It may be said today that such objections are no longer tenable, in consideration of the efficiency of modern apparatus, and the use of heavy metal filters such as copper or zinc. During the last ten to twelve years the writer has used routinely ½ to 1 mm. of copper as a filter for x-radiation, and during this time has observed none of the disagreeable sequelae that sometimes followed the use of roentgen radiation, filtered through aluminum, even through rather heavy thicknesses, and this in spite of all care and skill. Nevertheless, it must be urged that even today the treatment of tuberculous glands of the neck by roentgen radiation is not a task for the amateur or the occasional roentgen-therapist, and the best results may only be expected from one who has had plenty of experience.

Tuberculous lymphadenitis must be treated with small doses of radiation, and these repeated at not too frequent intervals. The only exceptions to this general statement are such glands in which the disease is so advanced that a breaking down and liquefaction of formidable masses of tuberculous tissue are manifestly inevitable. In such cases it is better to give a larger dose at one sitting in order to hasten liquefaction, and as soon as fluctuation is perceptible, and, before the overlying skin has become reddened and thin, to evacuate the tuberculous abscess, if possible, by means of aspiration of the pus through a large bore needle, or if this be impossible, on account of large, cheesy masses, through incision with a pointed scalpel. It is well, in most cases, if the abscess be incised, to pack it for a short time with a wick of iodoform gauze before the fistula is allowed to close. The breaking down and liquefaction of glands with abscess formation is no contra-indication to the continuance of roentgen therapy. On the contrary, the treatment should proceed without further modification. For the benefit of those who may be interested, the following details of the writer's treatment technique are given.

In the average case, a dose of 100 to 150 international roentgen units, measured on the skin with backscatter, are given under the following conditions: KVP 180—MA 20—Target skin distance 60 cm.—Filter 1 mm. of copper plus 1 mm. of aluminum. Intensity is approximately 20 R per minute. The effective wave length under these conditions lies between 0.14 and 0.13 Ångstrom units. The half-value layer is approximately 1.47 mm. of copper. The field is somewhat variable according to the age and size of the individual treatment, varying from 100 to 150 or more square centimeters. It is best to direct the central ray tangentially to the neck so as to avoid, as much as possible, the irradiation of normal structures. For shielding, the writer uses a piece of sheet lead approximately 30 cm. square. The lead should be sufficiently thin so that it may be readily molded to the contours of the patient's neck. An opening is cut out of the sheet lead in the shape of a trapezium. The longer parallel side of the trapezium runs along the median border of the sternocleidomastoid muscle. The posterior shorter parallel side runs along the line of the spinous processes of the cervical column. The inferior side runs along the clavicle and the superior just skirts along the tip of the mastoid process below the hair line. The size of this opening may be varied according to needs by additional lead strips. If an active tuberculosis be present in the apex of one of the lungs, it is important to shield the supraclavicular fossa. It is evident that the larynx is always well protected. The treatments, as outlined above, are repeated at intervals of three to four weeks, until a cure has been effected, although caution is to be urged when the number of treatments begins to exceed ten to twelve. As already stated, greater doses at shorter intervals may be given if a rapid liquefaction of tuberculous tissue is to be brought about.

As to possible contra-indications to roentgen therapy, the question is frequently asked by colleagues, unfamiliar with radiation treatment, whether or not the thyroid and parathyroid glands may be adversely affected. The writer has never observed hypothyroidism or hypoparathyroidism following therapeutic irradiation of tuberculous glands of the neck, and has not come across anything in literature which would indicate that such a danger is real. Moreover, all those who have

treated thyrotoxicosis with roentgen radiation are aware that even in a state of hyperplasia the thyroid gland is relatively resistant to the action of the rays, and it follows, logically, that the normal thyroid gland is even more resistant. The same considerations apply to the parathyroid.

Where the ridiculous notion has arisen that radiation therapy applied to the neck might affect the ovaries of female children, which the writer has heard brought up in all seriousness in this journal, is difficult to understand. That such a thing has no foundation, in fact or experience, is here stated with emphasis once and for all. The only real danger to be avoided is the unwanted radiation of active tuberculous lesions in the apices of the lungs, as has already been brought out, but this danger cannot be overemphasized.

Concerning the diagnosis of tuberculous lymphadenitis of the neck, a few observations are of importance in connection with its treatment. It is always, of course, desirable, when any therapeutic agent is employed, to have the diagnosis as definitely established as is possible. There are, however, some conditions where the differentiation between tuberculous lymphadenitis and other lymphadenopathies is not immediately possible. In such cases, resection of the gland and biopsy may be desirable, but in many instances, irradiation itself serves as a diagnostic procedure. Thus, the lymphadenitis in connection with acute or subacute, or even chronic infection of the throat, tonsils, etc., shows, following the first irradiation, a marked swelling of the individual glands, an elevation of temperature which is characteristic and does not, as a rule, take place when the glands are tuberculous. Such glands are favorably influenced by roentgen treatment, and usually the regression in size is rapid, a return to normal being accomplished in one to two weeks, which is never the case with tuberculous glands, except, perhaps, in a very early and acute stage, and then such regression may be regarded as a favorable sign from a prognostic point of view.

In case of lymphatic leukemia, the differentiation is readily made on the blood count and the smear, also by the fact that usually the disease is disemminated through various groups of glands accessible to palpation or fluoroscopy, notably the axillary and inguinal groups, as well as the mediastinal group. They respond readily to radiation therapy by shrinking and even completely disappearing, but a relapse takes place with equal readiness. In Hodgkin's disease, the blood count may leave one in doubt, but here, too, as a rule, more than one group of glands is involved, and the response to radiation is almost equally rapid. Occasionally, however, it may be necessary to excise a gland for microscopic examination to establish the diagnosis of Hodgkin's disease. Much more rarely will the cervical lymph glands be the site of metastases of malignant neoplasm where the primary neoplasm may be obscure. The author, however, has had the experience where a bronchogenic carcinoma located in the apex of the right lung was mistaken, temporarily, for an apical tuberculosis, and only the resection of a palpable cervical gland with the biopsy finding of carcinomatous metastasization led to the correct diagnosis.

Finally, it remains to discuss the prognosis in roentgen treatment of tuberculous glands of the neck and to state the criteria of a cure. The prognosis may be said to be very good, and the writer's experience would place the percentage of favorable results as high as 90 per cent. The criteria of a complete cure are, first of all, the shrinking of the glands with the production of firm fibrous nodules, which may be felt in place of the diseased glands and are usually described as "shot-like," resembling, as they do, bird shot. Tuberculous abscesses completely heal and all discharge ceases, and fistulae close and remain closed. Unsightly scars may then be resected surgically. It is well to observe the patient for months or even for a year or more after treatment has ceased, in order to see that all criteria of a cure have been well established.

Occasionally it happens that a gland will become firm and hard, but will not shrink. Such glands it has been the author's custom to have resected by a surgeon. The finding is usually tuberculous tissue, caseous or liquefied, surrounded by a thick, dense fibrous shell. This dense fibrous coat effectively chokes off the tuberculous disease and renders the gland thus changed a poor soil for the tubercle bacillus to live and grow. To be sure, it cannot be absolutely denied that tubercle bacilli may remain alive in such an altered gland for a considerable period of time, but their dissemination is effectively barred. Nevertheless, the resection of this type of gland is desirable. More commonly, however, the diseased glands are changed, as has already been stated, into small dense, hard, fibrous bodies, in which the tuberculous disease has been completely eliminated, and which forms a criterion of successful treatment.

The National Health in Japan.—In the present session of the Imperial Diet, Mr. Hasama, Chief of the Board of Health, discussed the health of the Japanese nation. The present inclination of the birth rate is slightly downward, but it is high in comparison with that of other countries, being thirty per thousand of population. The higher rates are found in the northern provinces, and the lower rates in the larger cities and the middle parts of the country. The death rate was 18.1 per thousand in 1934. More than 130,000 persons died of tuberculosis in 1934, the rate being 19.3 per 10,000 of population, including more than 96,000 persons who died of pulmonary tuberculosis. There were about 49,000 cases of dysentery in 1935, seven per 10,000 of population, and more than 15,000 deaths. According to the investigation made by the home office, of 152,050 villagers who were examined by the official experts, 118,000, about 78 per cent, had infestation with some kind of parasite. There are reported to be more than 7,000,000 cases of trachoma throughout the country. The number of insane increased and was greater than 83,000 in 1935. Venereal diseases also increased. The physical examinations of conscripts revealed that the number of those who fail the medical tests are regularly increasing every year throughout the country. The cause, however, is not clear. The home office has planned to establish this year as many health centers as possible in all parts of the country.

Our country can probably boast of no more courageous a set of heroes than her gallant men who bend over her laboratory test tubes; the sword of science is at constant duel with the physical demons that plague mankind.

CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section on pages 2, 4 and 6.

CALIFORNIA MEDICAL ASSOCIATION

HOWARD MORROW.....President
WILLIAM W. ROBLEE.....President-Elect
LOWELL S. GOIN.....Speaker
MORTON R. GIBBONS.....Council Chairman
FREDERICK C. WARNSHUIS.....Secretary-Treasurer

THIS MONTH'S TOPICS*

ASSOCIATION ACTIVITIES

1. *The First Response.*
2. *Postgraduate Courses.*
3. *Association Nights.*
4. *Hotel Rates—Pasadena.*
5. *1938 Annual Session.*
6. *Your Central Office.*
7. *Council Meeting.*
8. *Conference of County Secretaries, Standing Committees, Officers, and Councilors.*
9. *Make It 6500.*
10. *Passing Observations.*
11. *Our Printers.*
12. *Telephone Directories Medical Listings.*
13. *President-Elect Irvin Abell of the American Medical Association at Secretaries' Conference.*

DEPARTMENT OF PUBLIC RELATIONS

1. *Joint Committee.*
2. *Group Hospital Insurance.*
3. *Public Health Education.*

ASSOCIATION ACTIVITIES

THE FIRST RESPONSE

In the August issue a plea was made for five hundred contributions of $100 each to create the base amount for an Association Endowment Fund, the principal of the Fund to remain intact in perpetuity, the earnings to be used to expand Association activities. The appended letter is the first response. Now, may the remaining 499 follow this example. Won't you send in your check today?

Colfax, California,
August 17, 1937.

Dear Doctor Warnshuis:

On page 118 of the August issue of CALIFORNIA AND WESTERN MEDICINE I note that an endeavor is being made to secure an Endowment Fund, and that five hundred members are requested to send in $100 each toward the establishment of the Fund. I am enclosing herewith my check for $100 for this purpose.

I am still of the opinion that it would be well to have a life-membership fund whereby members over sixty years of age, who have been members of the Association for twenty years or longer and who have been in good standing throughout the period, could, for the sum of $100, become life members of the California Medical Association.

Hoping that my contribution is the five hundred and first rather than the first, I am, with kind regards,

Sincerely yours,

(Signed) ROBERT A. PEERS.

*All articles listed under the caption, "This Month's Topics," have been written and sent to the Editor by the Association Secretary, Dr. Frederick C. Warnshuis.

POSTGRADUATE COURSES

What One County Did, Your County Can Do*

The Postgraduate Study Courses, as conducted by the San Joaquin County Medical Society, have been the outgrowth of several things. First, the Medical Society of Sacramento County started a series of special programs in 1934 which were attended by three of our physicians, who reported enthusiastically regarding them.

Then, during the spring of 1935, the president of our local society, Dr. C. A. Broaddus, was urged by Dr. Frederick Warnshuis, Secretary of the California Medical Association, to organize a course of study programs for the fall.

A committee, composed of Drs. J. P. Hull, E. L. Blackmun, and A. L. Van Meter, the men who had attended the Sacramento meetings, was appointed to meet with the president. They determined on a definite course of action, looking forward to a rather permanent annual series of special meetings. They felt that it would be necessary to have funds other than the regular county dues, and proposed a special fee of $5 for each course. This money was to be held in a separate fund for the postgraduate courses and used to defray the expenses of the visiting speakers, to buy extra equipment such as lantern screens, blackboards, and, if necessary, a movie machine, and to furnish each member with a printed and engrossed certificate of attendance, framed, ready to hang on the office wall. Each paid member was to be furnished with a membership card on which appeared his record of attendance, and only those members were admitted to the study sessions.

To add to the attraction of the course, it was proposed to have each year at least one out-of-state speaker of more than local renown. It was realized that many of the finest things in the nation are at our very door, but occasionally it is worth while to bring special talent from farther away.

After careful consideration it was decided to have seven meetings, which would be entirely independent of the regular programs for stated meetings, and to get these all in between September 1 and Christmas. Each meeting was td begin at 7:30 p. m. and last until the speakers had covered the subjects assigned for the evening. Usually there were two speakers, each to take from twenty to forty-five minutes for a phase of his subject. Then, after a recess of five minutes, the other was to speak for a like period. In actual practice, it was found that this worked very well and the evening often lasted till near midnight, with keen interest manifested all the time.

The first series of programs given from September to December of 1935, was as follows:

Toxemias of Pregnancy, Dr. H. C. Shepherdson; Obstetrical Anesthesia, Dr. H. A. Stephenson; Early Syphilis, Acute Gonorrhea, Drs. C. W. Barnett and J. R. Dillon; Diseases of the Thyroid, Drs. Hans Lisser and H. H. Searles; Diseases of the Rectum, Dr. R. A. Scarborough; Female Sex Hormones, Drs. C. F. Fluhmann and A. V. Pettit; Fractures of the Lower Extremity, Dr. L. C. Abbott; Diseases of the Stomach and Intestines, Dr. Garnett Cheney.

A careful record of attendance was kept, and everyone who was present for six meetings was presented with a certificate reading as follows, and framed, ready to hang:

"San Joaquin County Medical Society
Post Graduate Course
Certificate of Attendance
1935

This certifies that Dr. (name of physician) has attended the required number of graduate sessions of the San Joa-

* By C. A. Broaddus, Chairman of Postgraduate Study Committee, San Joaquin County Medical Society.

quin County Postgraduate Extension Course for 1935, in recognition of which this award is made."

Dated and signed by the president and the secretary of the Society.

Out of forty-eight paid and registered members, thirty-eight received the awards, most of which very likely can be found today hanging on the office walls of the recipients. In 1936, the same award was made to a like number out of fifty paid memberships.

In 1936, the same committee was reappointed, including Doctor Broaddus, with Doctor Van Meter as chairman. The same general plan was continued, and it was decided to include an out-of-state speaker. Through the help of the San Francisco Academy of Medicine we were able to get Dr. J. H. Musser of New Orleans, Professor of Medicine at Tulane University. The program of seven meetings given in the fall of 1936 was as follows:

Respiratory Diseases and Disorders of Childhood, Dr. Roland P. Seitz; Endocrine Glands in Childhood, Dr. D. C. Marshall; Fractures of the Upper Extremity, Dr. N. J. Howard; Surgery of the Biliary Tract, and Large Intestine and Appendicitis, Drs. Gunther Nagel and E. Rixford, Jr.; Diseases of the Blood, Drs. Garnett Cheney and H. A. Wyckoff; Nontuberculous Diseases of the Chest, Dr. S. Shipman; X-Ray Diagnosis of Nontuberculous Diseases of the Chest, Dr. Robert Stone; Common Diseases of the Eye, Dr. D. O. Harrington; Diseases of Mouth and Throat, Dr. R. F. Nelson.

For the seventh meeting Doctor Musser gave us, at 4 p. m., a clinic on blood diseases, with cases presented by the Committee. At 7 p. m. there was a dinner for him and the members of the course, followed by an illustrated lecture, "Classification of Anemias."

This year a committee of five was appointed, to include Dr. A. L. Van Meter, program chairman, for the regular stated meetings; Dr. Langley Collis, chairman of the dinner meeting programs restricted to home talent; and Dr. C. A. Broaddus, chairman of the postgraduate series; Dr. Samuel Hanson and Dr. George K. Wever.

As a result of the past two years' success, the enthusiasm for the course is greater than ever, and the following program is being prepared:

Syphilis. Routine Wassermann; darkfield; diagnosis of secondary lues; diagnosis of late tertiary; methods of up-to-date and uniform treatment; maternal syphilis; treatment of the new-born; meaning of the Wassermann in the new-born.

Gonorrhea. By a urologist and a gynecologist.

Obstetrics and Gynecology. Endocrinology; prenatal care; termination of pregnancy; complications of labor.

Pharmacology and Clinical Medicine. Newer developments in the treatment of disease.

Traumatic surgery; surgical shock.

In addition to this program, arrangements are partially completed for three out-of-state speakers on dates to be announced later. We have the promise of a visit by Doctor Wenger, medical officer in charge of Public Health Service at Hot Springs, Arkansas; and Dr. Ralph Richards, surgeon, Salt Lake City, Utah.

Our innovation this year will be the offer of a $25 cash prize for the best-written review filed by any member of the course. It is planned to have these reviews presented at a special meeting of the county society in January or February, with three outside judges present.

Success

The success of these programs is probably due to several things. In the first place, the subjects have been presented by very able men who were willing to coöperate. Attendance has been very good and enthusiastic as well as carefully checked. There have always been several speakers, so that each session was broken up into twenty- to thirty-minute periods, with short recesses between, the program often lasting three to four hours. The payment of fee in advance, recognition of attendance by certificate, and exclusion of all but members of the course, have added much to the interest. The inclusion of out-of-state speakers tends to differentiate the course from the ordinary run of society programs.

ASSOCIATION NIGHTS

The general officers again plan to visit constituent county units during the fall and winter months. County officers have been requested to designate local dates for these State Association nights.

The purpose of these meetings is to present State Association policies, plans and activities and to discuss local problems with each county society. Such interchange of discussions are productive of better understanding, clarify problems and their factors, and stimulates organizational activity that will advance members' interests. Officers and committees obtain valuable information that is helpful in that it enables them to better discharge their duties for the future good of each county and the State Association.

Local secretaries will announce the date of this visit to your county. When you receive that notice, it is hoped that every member will plan to be present. Your State officers are very desirous of meeting with as many members as possible, and will welcome your questions and suggestions. Plan to attend the State Association night meeting in your county.

HOTEL RATES—PASADENA

The following convention rates have been fixed by the Hotel Huntington for the Association's 1938 session.

American Plan (includes meals):

$8 per day—single room and bath.

$7 per day each—double room and bath.

Transient meals: Breakfast, $1.25; luncheon, $1.50; dinner, $2.

Reservations should be made direct with the hotel management. The Huntington has sole charge and control of all reservations.

1938 ANNUAL SESSION

May 9 to 12 are the dates that have been designated for our 1938 annual session in Pasadena. Headquarters and all meetings will be in the Hotel Huntington.

All hotel room reservations will be handled direct through the office of the Manager of the Hotel Huntington. Write to him, and it is suggested that you do it *now*, for such accommodations as you may desire. The Association's Secretary holds no reserve reservations. Room assignments are entirely in the hands of the hotel management.

To avoid disappointment, make your reservations now.

YOUR CENTRAL OFFICE

Members are reminded that the Association's headquarters office in San Francisco is not the office of any single officer or of the Council. It is the central office of every member whether he lives in the North or South, urban or rural regions. It is your central office, where the entire personnel seeks to serve you in meeting your problems and bettering your professional and personal interests.

It is a clearance office that desires to serve every member. Use it as such and feel free to call for information or assistance whenever you perceive that assistance is desired. Prompt response will meet your inquiries.

COUNCIL MEETING

The Council convened in special session in San Francisco on August 14. The purpose of the meeting was to give consideration to the publication of the report of the Medical Economic Survey. Doctor Sharp, Federal Coördinator of the WPA projects, outlined the federal requirements. The State Board of Public Health is the agency to which the Federal Government looks for the completion and publication of the report, as that State department is held to be the sponsoring agent.

After careful and detailed consideration of all the factors involved, the Council took the necessary action to bring about the publication of the report in sufficient number to supply every member with a copy and for additional copies for federal use.

Because of conflict with other scheduled meetings, the Conference of County Secretaries, Committeemen, and Councilors was changed from Fresno to San Francisco, and the new date of October 2 was fixed. See elsewhere in this department for program details.

The Secretary was directed to request the delegates of the county societies constituting the Eighth District to submit nominations for the consideration by the Council for appointment as councilor of that district to fill the vacancy caused by the resignation of Dr. C. E. Schoff.

The next regular meeting of the Council will be on October 2 and 3.

CONFERENCE OF COUNTY SECRETARIES, STANDING COMMITTEES, OFFICERS, AND COUNCILORS, SAN FRANCISCO, OCTOBER 2, 1937*

The following program will govern the above captioned conference:

Annual Joint Conference of County Secretaries, Standing Committees and Officers and Councilors of the California Medical Association, to be Held in San Francisco, Sir Francis Drake Hotel, October 2, 1937.

9:00 a.m.—Committee Meetings. Committees will meet in rooms provided. During luncheon, tables will be arranged for committees for further deliberations.

10:00 a.m.—Opening Statement — Morton R. Gibbons, Chairman of the Council.

10:10 a.m.—Remarks—President Howard Morrow.

10:20 a.m.—Public Meetings and Speakers—S. K. Cochems, Los Angeles.

10:40 a.m.—Postgraduate Opportunities—John C. Ruddock, Chairman of the Committee on Postgraduate Activities.

11:00 a.m.—What Happened in Atlantic City—William W. Roblee, President-Elect.

11:20 a.m.—Public Relations—C. A. Dukes, Chairman of the Committee on Public Relations.

Discussion and Questions—Fifteen minutes following presentation of each subject.

RECESS

12:15 to 1:30 p.m.—Luncheon.

1:30 p.m.—Address—Irvin Abell, President-Elect of the American Medical Association.

2:00 p.m.—Standing Committee Activities (ten minutes each).

(*a*) Associated Societies and Technical Groups—John V. Barrow.
(*b*) Health and Public Instruction—Fred B. Clarke.
(*c*) History and Obituaries—Frank R. Makinson.
(*d*) Hospitals, Dispensaries and Clinics — Daniel Crosby.
(*e*) Industrial Practice—M. R. Gibbons, Sr.
(*f*) Medical Defense—George Reinle.
(*g*) Medical Economics—John H. Graves.
(*h*) Medical Education and Medical Institutions—L. R. Chandler.
(*i*) Public Policy and Legislation—J. B. Harris.
(*j*) Membership and Organization — E. Vincent Askey.
(*k*) Qualifying Certificate (Basic Science) Law—George H. Kress.
(*l*) Venereal Disease—Howard Morrow.

4:00 p.m.—Summary and Adjournment.

8:15 p.m.—Council Meeting.

OCTOBER 3

9:00 a.m.—Council Meeting.

In July, chairmen, committeemen, and listed speakers were requested to begin preparation for this conference. Outlines of problems, policies, and questions were sent for committee consideration and recommendations to the Conference.

It is planned to arrange for committee meetings during the morning when committees can give final consideration to their reports.

It is anticipated that this conference will accomplish the determination of a program of work that will be executed by standing committees in the interests of the Association and individual members. Increased and achieving committee activity should result from this conference.

The conference will be held in the Sir Francis Drake Hotel in San Francisco. Actual train, Pullman, or automobile (when indicated) expense will be reimbursed to county secretaries and committee members.

* See also editorial comment on page 146.

MAKE IT 6500!

On August 15 the total was 5359 members in good standing in county units and the State Association. We began the year with 5498 members. Let us make it 6500 by January first! It can be done.

Every member is requested to become a worker in this drive. Obtain several application blanks from your county secretary. List your associates, hospital staff members, and your medical friends. Check off those whom you know are society members. Then approach the nonmember and point out to him the reasons why he should belong to his county medical society and urge upon him to fill out a membership application blank. The State Association dues for the remainder of this year are $3.75. The 1938 dues have been fixed at $10.

It is estimated that there are at least one thousand eligible and desirable nonmembers in the State. They should be affiliated. Will you aid to secure their application?

With the American Medical Association meeting in San Francisco next June they will want to attend that session, which constitutes the greatest postgraduate week in the world. Remember, *no one,* not a single person can gain admission to section meetings, scientific and commercial meetings, unless he has registered and obtained an official admission badge.

To register one must present a *Fellowship Card.* To obtain a Fellowship card one has to be a member of his county and state organization.

Make it 6500! Member, will you take it upon yourself to help attain that goal?

PASSING OBSERVATIONS

There are certain areas in the United States where there is what may be termed "inadequacy of medical service." There will remain such inadequacies of service until the enlightening benefit of education, until there is an increase in nutritional standards, until good roads and long-continued health education have rendered it possible to bring the intellectual and cultural level of the people living in these areas to a social plane that makes modern medicine possible of application.—Heyd.

* * *

It is apparent that the solidarity of the medical profession is under constant sabotage by groups on the fringe of the profession. We have within the profession certain pressure and compulsion groups that are endeavoring by indirection to set up alien forms of medical service. This fractionalization of medical organization, or better, fragmentation, has done much to implement the enemies of the profession. It would seem wise that we reëxamine and reappraise our medical policies. There is literally a tower of Babel apparently speaking for the profession. The "Essays on Silence" would be a splendid gift to some of our professional planners.—Heyd.

* * *

County medical societies should embrace every opportunity to build and strengthen public good will toward the ideals and quests of scientific medicine. This is an organizational function that has been overlooked in yesterdays.

* * *

There rests upon the medical profession one obligation that is superlative to all others. We have received from the past the splendid edifice of modern medicine. It is our natural duty to hand that on to generations yet to come. The ranks of organized medicine must stand fast, must speak unanimously with one resonant voice, so that medicine shall be free to explore the unheralded realms of science and march forward with increasing effectiveness . . . where there is no vision, the people perish.—Heyd.

* * *

Standing committees desire to serve and accomplish results for the membership. Send in your suggestions to the central office in order that they may be recorded and referred to the proper committee.

With the ending of vacation days and return to meet the demands of practice, you will do well to determine to attend each meeting of your county society. Lend encouragement and support to your officers and program committee. Every meeting night is "Bank Night" in your society and every attendant wins a prize in benefiting by the papers, presentations and discussion. Do not miss your "bank night" drawing.

* * *

In 1926 a recommendation was made to the American Medical Association House of Delegates that the Judicial Council be empowered to take disciplinary action against members where county or state organizations failed to discipline members. In 1937 this recommendation was enacted. The American Medical Association can now expel members and Fellows of the American Medical Association. It remains to be seen if state and local units will take similar action. There has been a great need for certain house cleaning.

* * *

The Golden Gate Exposition in San Francisco in 1939 will have a building with some 60,000 square feet of space devoted to health and science. An advisory board of some thirty leading medical men and scientists of California are actively engaged in developing the exhibits in this building.

* * *

"Factors Involved in Satisfactory Shaving" (*Journal of the American Medical Association*, July 10), is well worth reading. If the recommendations are followed, there will ensue a marked decrease in morning bathroom cussing and the abolishing of styptic sticks.

* * *

It would be appreciated if someone would explain the justification of a $5,000 fee (and higher fees have been reported) for an attorney in a divorce proceeding when a similar fee for a major surgical operation to persons of means is disapproved by the judge who approved the attorney fees. We have great admiration for the learned members of the Bar, but we are unwilling to concede that their legal services justify higher fees than those awarded to a skillful surgeon who accomplishes relief or cure in a serious brain, head, chest, or abdominal lesion. The same is true for the internist, who guides to recovery patients with pneumonia, or prolongs the life of a diabetic or cardiorenal case. Will someone explain the finesse of the attorney? The Social Security Board might take this on as a major economic problem and remedy the "high cost of legal services."

* * *

As this issue comes to your desk or reading table it is accompanied by some seventy-five personal guests who are making a call on you individually. They are your advertiser friends making a personal visit to you. By courtesy you are obliged to give them an interview and receive their message. Listen to them by turning to the advertising section in this and every issue of your JOURNAL. Learn what they have to say by reading their message. Then if they can serve you, give them preference in your patronage. This is an obligation you owe to your guest callers. You also owe it to your Association to patronize these advertising friends. Doing so will be profitable to both.

* * *

Invite your nonmember associate or medical friend to accompany you to your next county society meeting if he is eligible for membership. Then introduce him to the secretary and arrange so that he may file an application for membership. Every desirable, eligible doctor of medicine, a member, is the goal sought. Your assistance is needed.

* * *

Members are again reminded to write for hotel accommodations for the Pasadena 1938 session. Address Manager, Hotel Huntington, Pasadena, who is in sole charge of all hotel reservations.

Members desiring to present papers at the annual session should file application with section secretaries. Program assignments will be made in November.

* * *

Watch that accident case; be sure to have x-ray examinations and keep clinical record of details. Place under close forty-eight-hour observation every case of head injury, even though there was only momentary unconsciousness. Intracranial hemorrhage symptoms may be delayed several hours.

* * *

Encourage your wife to affiliate and become active in your local Woman's Auxiliary. Auxiliaries can be of tremendous help in your county in developing good will and sound public opinion.

OUR PRINTERS

The James H. Barry Company of San Francisco have been the Association's official printer since 1906. During these years they have printed every issue of CALIFORNIA AND WESTERN MEDICINE. This firm has been in business since 1879.

Printing today is a recognized craft that requires craftsmen who are expert, as every printing operation demands expert skill. There has been a tremendous advance in methods and execution since the days of the "job shop" of a score of years ago. Hand composition has, of course, yielded to the linotype. Rotary and flat-bed presses are as different as the automobile of today is from a car of the vintage of 1910. Presses are almost human, as are folders, binders, assembly and trimming machinery, and the other pieces of mechanical equipment essential for a modern printing plant.

There has been developed for medical journalism a medical style and standard. Therefore, to do first-class medical composition and printing, specialists in medical composition and printing have to be trained and retained by printing firms undertaking medical publications. The James H. Barry Company have several such specialists which accounts for the high grade of typographical workmanship that is apparent in each issue of our official publication.

Recently our official printers have moved into their new plant building at 170 Van Ness Avenue South. It is the most modern printing establishment in San Francisco, and the building and additional equipment represents an added investment of $150,000.

The James H. Barry Company take pleasure in their well-deserved and well-earned pride in being recognized as the leading printers in medical journalism and publications in California. They have fixed a high standard which they constantly seek to improve by maintaining a staff of skilled specialists who are ever seeking to produce the best finished production that will conform to the highest standards of medical style and publication.

This firm provides the medical profession of California with a specialized printing service that will meet the needs of physicians and surgeons whenever they require printing services for organizational and personal needs. A cordial invitation is extended to our members to visit this modern plant and inspect its facilities. They will be glad to consult with you in regard to your personal printing needs and render you a highly skilled technical service.

TELEPHONE DIRECTORIES MEDICAL LISTINGS

At this year's annual session a resolution was introduced and approved requesting the Council to take measures to correct improper medical listings in telephone directories' classified sections. Reference was made to classifying irregular practitioners with licensed doctors of medicine.

A complaint was received from San Joaquin County. Through local efforts and contact with the telephone exchange manager it is now reported that a satisfactory solution has been obtained.

The Council desires to be advised if similar improper listings exist in other counties in order that assistance may be given to institute satisfactory telephone listings.

PRESIDENT-ELECT IRVIN ABELL OF AMERICAN MEDICAL ASSOCIATION

At Conference of State Association and County Officers and Committees

President-Elect Irvin Abell of the American Medical Association has accepted the invitation to attend and address the Conference of County Secretaries, Standing Committees, and the Council, scheduled to be held in San Francisco on October 2. This announcement should create an intention on the part of secretaries and committee members to attend this important meeting. Doctor Abell will bring a message that will be most helpful. His delightful personality and his personal reflection of all that is sound and ideal in medicine and life is sure to arouse an inspiration in every listener.

Doctor Abell's Pacific Coast visit is necessarily limited because of the demands made upon his time. It has been possible, however, to arrange for him to address the members of the Santa Barbara, San Luis Obispo, Ventura, and Kern counties in Santa Barbara on the night of October 4. On Tuesday, October 5, Doctor Abell will address a general meeting of the Los Angeles County Medical Association. Notices of these local meetings will be given by the county secretaries.

C. M. A. DEPARTMENT OF PUBLIC RELATIONS†

Joint Committee

Several State organizations have found it advantageous, and as a means to more readily solve problems of mutual concern and secure public good will, to organize a Joint Committee on Public Education. The committee is composed of representatives (one to five) from state medical, dental, hospital, nurses, druggists organizations; tuberculosis, health, Parent-Teacher Associations, Red Cross, and welfare groups; the Department of Education and the medical colleges.

Meetings of these representatives are held at three- to four-month intervals. Group problems are presented, discussed and solution determined. A program of public education is developed and applied. Public interest is aroused and public good will is cultivated.

In one state this joint effort has been in existence for twenty years and has been a tremendous influence and factor in the public life of that state. During the past year it rendered valuable service in securing the enactment of a basic science law.

It should not require much argument or persuasion to induce similar organizations in California to join in a joint committee movement. The Department of Public Relations will undertake the initiative.

Group Hospital Insurance

It is deemed advisable to direct attention to the policy adopted by the Committee on Public Relations relating to group hospitalization plans. The Committee's policy, approved by the Council and the House of Delegates, may be summarized as follows:

1. Proposed plans for a county and area are to be first submitted to the county society for review and approval.
2. They are then to be submitted to the Committee on Public Relations for review and approval.
3. Services shall include only those of hospital bed or room, ordinary nursing care, food, ordinary drugs, operating room services, and dressings.
4. Radiology, whether diagnostic or therapeutic, and diagnostic laboratory services shall not be included.
5. It shall not include medical services or care in any form other than the ordinary services of an intern, rendered under the orders and supervision of the attending physician or surgeon.

These fundamental principles must be met in order to secure county and state medical organization approval.

Under legislation enacted and effective August 27, 1937, it is necessary to obtain a permit from the State Board of Public Health and also to comply with the regulations of the State Insurance Commissioner.

Localities or areas planning to form groups to provide hospital care should conform to these policies and law regulations.

Public Health Education

Assistance has again been given to the San Francisco Young Women's Christian Association by arranging for the following speakers on the subjects selected by the Young Women's Christian Association.

Similar service is available to any representative lay organizations in the State:

Thursday, 7:15 to 8 p. m.

Y. W. C. A. Building, 620 Sutter Street

September 16—How to Live With Your Heart—Dr. John J. Sampson.

September 23—The Value of a Personal Physical Audit—Dr. S. J. Shipman.

September 30—Cosmetics and Facial Blemishes—Dr. George V. Kulchar.

October 7—How to Choose Your Doctor—Dr. T. Henshaw Kelly.

October 14—Normal and Abnormal Physical Functions in Women—Dr. C. Fluhmann.

October 21—What to Do in Emergencies—Dr. J. W. Cline.

October 28—The Mind and Personality—Dr. Joseph B. Catton.

November 4—The Significance of Pain—Dr. Stanley H. Mentzer.

November 11—Infectious Diseases and Prevention—Dr. J. C. Geiger.

November 18—Drugs and Self-Medication—Dr. E. J. Best.

CHANGES IN MEMBERSHIP

New Members (33)

Alameda County.—John P. Adams, Fred D. Fisher, George E. Kleeman, Jr., Charles E. Mordoff, George M. Peckham, Egon Fritz Schmerel, E. Gale Whiting.

Fresno County.—Philip Richtel.

Los Angeles County.—Harold J. Chapman, John C. Fate, C. H. Francis, Ross A. Goodcell, A. S. Gough, George B. Hanson, D. A. Hawkins, Samuel K. Jamentz, Harvey S. Johnson, Jack B. Lomas, Harry J. Powers, John F. Roberts, Arthur M. Rosenthal, Albert Saxon, John H. Schaefer, John J. Smith, Benjamin N. Tager, S. J. Weinberg.

San Bernardino County.—Jacob Janzen, C. A. Mason.

San Diego County.—Francis M. Smith.

San Francisco County.—Vance M. Strange.

Solano County.—F. Burton Jones.

Stanislaus County.—Clarence Phelps Custer, C. Ronald Fulkerson.

Transferred (5)

Vernon L. Evans, from San Luis Obispo County to Illinois.

Francis M. Findlay, from Santa Barbara County to San Diego County.

Rowland H. Harris, from Los Angeles County to Michigan.

S. Theron Johnston, from Orange County to San Diego County.

Paul S. Phelps, from Placer County to Connecticut.

Resigned (1)

Walter W. Woods, from Los Angeles County.

†The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. Charles A. Dukes of Oakland is the chairman, and Dr. F. C. Warnshuis is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. F. C. Warnshuis, Room 2004, Four Fifty Sutter Street, San Francisco.

In Memoriam

Alexander, Edgar William. Died at Lone Pine, July 21, 1937, age 59. Graduate of the University of California Medical School, San Francisco, in 1905 and licensed in California the same year. Doctor Alexander was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✝

Bennette, Marie Antoinette. Died at San Bernardino, July 27, 1937, age 79. Graduate of Cooper Medical College, San Francisco, in 1885. Licensed in California in 1886. Doctor Bennette was a member of the San Bernardino County Medical Society, the California Medical Association, and the American Medical Association.

✝

Grissim, John de Lafayette. Died at San Francisco, July 22, 1937, age 68. Graduate of Columbia University College of Physicians and Surgeons, New York, 1893. Licensed in California in 1895. Doctor Grissim was a retired member of the Alameda County Medical Association, the California Medical Association, and the American Medical Association.

✝

Spencer, John Campbell. Died at Palo Alto, July 4, 1937, age 76. Graduate of Columbia University College of Physicians and Surgeons, New York, 1885. Licensed in California in 1889. Doctor Spencer was a retired member of the San Francisco County Medical Society, the California Medical Association, and the American Medical Association.

✝

Wheeler, Joseph Suley. Died at Santa Cruz, July 23, 1937, age 81. Graduate of the Royal College of Physicians. Edinburgh, 1891. Licensed in California in 1895. Doctor Wheeler was a retired member of the Placer County Medical Society, the California Medical Association, and the American Medical Association.

✝

Webster, Oran Lamar. Died at Holtville, July 31, 1937, age 38. Graduate of the College of Medical Evangelists, Loma Linda, 1928, and licensed in California the same year. Doctor Webster was a member of the Imperial County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

OBITUARIES

Marie Antoinette Bennette
1857–1937

Marie Antoinette Bennette, M. D., died on July 27, 1937, at Ramona Hospital in San Bernardino, at the age of seventy-nine years.

Doctor Bennette was born on the Bennette ranch near Shingle Springs, El Dorado County, California, November 25, 1857. She attended the Shingle Springs County school and later the San Jose Normal School. After teaching for three years she entered Cooper Medical College (Stanford), San Francisco, graduating on November 11, 1885. She was the only woman in the graduating class of twenty, and was the first native daughter to become a doctor. In 1889-1890 she did postgraduate work in Philadelphia, following which she practiced for two years in Porcupine, Alaska, being in charge of the Miners Hospital there.

With the exception of a few years in Alaska and Arizona, Doctor Bennette's entire career was spent in San Bernardino. She was resident physician at the County Hospital for a number of years, where she started the first training school for nurses, and later operated her own hospital, the Sequoia.

In 1935 Doctor Bennette celebrated her golden anniversary in the practice of medicine, and received letters and telegrams, numbering over five hundred, from all parts of the world. Among those who wrote were former President Hoover and Dr. Lyman Wilbur, President of Stanford University.

It is impossible to estimate the amount of charity and good deeds performed by "the little doctor," as she was affectionately known to thousands. In her passing, San Bernardino has lost one of its pioneers of medicine.

✝

Frank Pierce Gray
1852–1937

In the recent passing of Dr. Frank P. Gray of San Francisco, the profession of California has lost an ethical and able man; and the young student and practitioner, just entering his career, a kindly friend and adviser. For Doctor Gray was ever thus; and his long service at the old Cooper Medical College, where he was associated with the beloved dean and professor of obstetrics, Dr. Henry Gibbons, Jr., and with Dr. William Fitch Cheney, of diseases of children. was one of kindly, practical aid to students. Unassuming, nonspectacular, avoiding the limelight, Doctor Gray, nevertheless, gave of his best at all times, and was the true friend at all times of the young man and woman of medicine in his chosen specialty—obstetrics and diseases of children in an era now passing, where *practical* experience counted so much.

He was especially ready to help the young doctor in a complicated case, irrespective of fee, and "The Deacon"—as he was known to us in those days of the nineties and nineteen-hundreds—always smoothed out difficulties with his humane advice as to methods of procedure.

The Medical Society never had a more conscientious member on its rolls. Neither entering into politics nor taking an active part in Society proceedings, he was, therefore, unknown and unappreciated by many of his medical associates. But within this small frame there breathed loyalty, noble ideas, love of fellow man, and the desire to be of service to suffering humanity.

The best tribute to him is contained in the closing lines of Edgar Guest's, "The Humble":

> So he who dwells at peace with men,
> And has a few true hearts that love him,
> Has more of joy within his ken
> Than those who tower in fame above him.

God rest the soul of Frank P. Gray!

FRANK P. TOPPING, M.D.

✝

John de Lafayette Grissim
1869–1937

The long medical career of Dr. John de Lafayette Grissim, sixty-eight, prominent Oakland physician, was closed on July 22 in death.

He died at his home, 2900 Pacific Avenue, San Francisco, where he had lived since his retirement from his Oakland practice several years ago.

Doctor Grissim, the son of Dr. John de Lafayette Grissim of Kentucky, came to California as a young man. He was graduated from the University of California with the class of 1893, then studied at the University medical school and at Columbia University, New York.

He practiced for several years in San Jose before coming to Oakland.

Here he met his wife, the former Miss Irene Baker. daughter of Mrs. George Washington Baker, now of San Francisco, and the late George Baker. She is the sister of George Washington Baker, Jr., of Piedmont, and the late Raymond Baker, director of the mint in the Wilson Administration.

Their marriage was a brilliant social event here at the turn of the century. They have three children—Mrs. Eugen von Teuber, Mrs. Edgar Gallwey, and John de Lafayette Grissim, Jr.

F. R. MAKINSON, M.D.

THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION†

MRS. HOBART ROGERS ..... President
MRS. FRED ZUMWALT .....Chairman on Publicity

In Memoriam: Dolores Barrow

Our Auxiliary has lost an able, efficient officer. Dolores Barrow is dead. As the wife of Dr. John V. Barrow of Los Angeles, she took an active part in our organization, being, at the time of her death, our president-elect. Some of us will think of her as a loyal officer, whose place it will be difficult to fill; others will mourn her as a dear friend, but all of us will miss her.

It was in Santa Monica, on La Ballona Rancho, the Machado rancho, that Dolores Machado was born. This, too, was the birthplace of her father. She was the fourth generation removed from the Spaniards who came to California with Father Junipero Serra. On the maternal side she came from the Sepulveda family. Her maternal grandfather was born in Santa Barbara.

Upon her graduation from the Santa Monica High School she entered the University of California, from which she was graduated with honor. Later she was sent, under Government appointment, to teach in the Philippine Islands. This embraced educational work from the most elementary to the highest. It was while engaged in this field that she met Doctor Barrow, a pioneer in education in the Philippines, and it was there they were married in 1903. In 1907 they returned to this country and settled in Los Angeles.

Mrs. Barrow's first civic interest was the furtherance of the opera in Los Angeles. She was an active member of the Woman's Athletic Club; Woman's University Club, having served on the board; a past vice-president of the Friday Morning Club and, as membership chairman, during one of the depression years, increased the membership one thousand. She was a member of Town and Gown and the Faculty Wives of the University of Southern California. She was one of the founders of the Garden Club; her collection of fuchsias and begonias is one of the finest in the State.

Her chief interest, however, lay in the advancement of scientific medicine. For two years she served as president of the Woman's Auxiliary to the Los Angeles County Medical Association; she also served on the State Board of the Woman's Auxiliary to the California Medical Association.

At her death, which occurred on July 25, she left, besides her husband, a son, Carlos, a student at Stanford University. Two sisters also survive, Florentina Machado and Mrs. Machado Minor of Santa Monica, and two brothers, Frank and Luce Machado of San Mateo.

To have known her was a privilege.

"THERE IS NO DEATH. WHAT SEEMS SO IS TRANSITION."

Eighth Annual Session: Report

The first meeting of the eighth annual convention of the Woman's Auxiliary to the California Medical Association was called to order at 10 a. m., May 4, 1937, in Del Monte Lodge, Del Monte, California, by the president, Mrs. Andrew J. Thornton.

Invocation—Reverend Stewart C. Potter of Monterey.

Address of Welcome — Mrs. Lawrence M. Knox of Carmel.

Response—Mrs. Guy Manson of Fresno.

In Memoriam—Mrs. W. W. Roblee gave a brief and appropriate service in memory of those members who had passed away during the year:

†As county auxiliaries of the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Fred Zumwalt, Chairman of the Publicity and Publications Committee, 3880 Clay Street, San Francisco. Brief reports of county auxiliary meetings will be welcomed by Mrs. Zumwalt and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the Editor to allocate two pages in every issue to Woman's Auxiliary notes.

Alameda County—Mrs. W. L. Smithies, April, 1937.

Los Angeles County—Mrs. Vernon O. Haddens, February, 1936; Mrs. Harry Smith, March, 1936; Mrs. Charles S. Young, July, 1936; Mrs. T. L. Laughlin, September, 1936; Mrs. E. N. Van Ornum, October, 1936.

San Diego County—Mrs. S. J. McClendon, July, 1937.

Registration.—Mrs. Andrew J. Thornton introduced our guest of honor, Mrs. Robert E. Fitzgerald, President of the Woman's Auxiliary to the American Medical Association. Mrs. Fitzgerald, in her response, brought greetings from the National Auxiliary.

Seventeen State officers, sixty-five delegates, and nine alternates responded to the roll call.

Mrs. H. G. Lindenmuller read the rules of the convention, and they were accepted.

Reports of Officers

President's Report. — The president, Mrs. Andrew J. Thornton, called the first vice-president, Mrs. Clifford A. Wright of Los Angeles, to the chair while she read her report.

Treasurer's Report. — Mrs. Frank Makinson's report showed a commercial account of $689.81 and a savings account of $343.45. She presented an auditor's statement, which was read by the secretary. The reports of both were accepted.

Membership and Organization. — Mrs. Clifford A. Wright, Chairman, in the report of her year's work, stated that Monterey County had organized and that Siskiyou County had disbanded.

Program and Health Education.—Mrs. John Barrow, Chairman, reported her work and its progress, mentioning outstanding accomplishments of the different auxiliaries. She also reported as chairman of the Lending Library, listing additions to the contents.

Finance.—Mrs. Hobart Rogers, Chairman, presented a tentative budget for 1937–1938 as follows:

Stationery	$ 85.00
Clerical	125.00
Postage	60.00
Telephone	25.00
Convention	150.00
Editor	125.00
Travel expenses	225.00
Organization	50.00
Miscellaneous	30.00
Total	$875.00

The budget was adopted by the House of Delegates.

A motion was then made and carried that the dues for the year 1937–1938 be fixed at one dollar per capita.

Interesting reports by the following committee chairmen were read and approved:

Public Relations—Mrs. Arthur J. Annis.
Public Health Activities—Mrs. Frank H. Rodin.
Editor and Publicity—Mrs. Robert M. Furlong.
Hygeia—Mrs. Mark L. Glaser.

Resolutions

Recommendations From the State Board.—The following recommendations, presented by the State Board, were read by the Secretary.

WHEREAS, It is important that the Archives of the Auxiliary, including annual reports, convention programs, official correspondence, etc., be kept intact; and

WHEREAS, Said records now repose in the files of the various officers; and

WHEREAS, Said records are at present incomplete and improperly housed; therefore be it

Resolved, That it is the will of this convention that steps be taken at once by the Board of Directors to assemble said records, complete said files and properly house the same; finally, be it

Resolved, That hereafter these Archives shall be the charge of the recording secretary.

MRS. ANDREW J. THORNTON, *President.*

Be it recommended that each county president call the delegates of her county for a caucus to give instructions and impress upon each delegate the responsibility she has assumed in regard to the business to be transacted at the State convention. MRS. JOHN BARROW.

* * *

The President appointed a Resolutions Committee, consisting of Mrs. Frederick N. Scatena (chairman), Mrs. Elliot C. Colby, and Mrs. Lawrence M. Knox.

The following vacancies were reported filled during the year:

Councilor of Seventh District—Mrs. S. Weil, resigned. Mrs. Charles C. Hall was appointed.

Councilor of Eighth District—Mrs. Junius B. Harris, resigned. Mrs. Fredrick N. Scatena was appointed.

Mrs. Clifford A. Wright and Mrs. Robert Furlong were elected from the Board, together with Mrs. Phillip S. Doane, Mrs. J. C. Geiger and Mrs. Charles A. Dukes from the floor, to serve on the Nominating Committee.

The meeting adjourned.

* * *

The second general meeting was called to order at 10 a. m., May 5, 1937, by the president, Mrs. Andrew J. Thornton.

Mrs. Newman, Chairman of Credentials and Registration, reported a total registration of 259.

Seventeen Board members and sixty-five County Auxiliary delegates responded to the roll call.

The minutes of the first session of the eighth annual convention were read and accepted.

* * *

The following district councilors reported:

First District—Mrs. Dexter Ball.

Second District—Mrs. Benjamin H. Sherman.

Third District—Mrs. N. N. Brown, absent. Verbal report by Mrs. John Barrow.

Fourth District—Mrs. George W. Walker.

Fifth District—Mrs John Hunt Shephard, ill. No report.

Sixth District—Mrs. G. H. Becker, absent. Report read by the Secretary.

Seventh District—Mrs. Charles C. Hall.

Eighth District—Mrs. Fredrick N. Scatena.

Their reports were accepted.

* * *

The following county presidents reported:

Alameda County—Mrs. A. A. Alexander reported for Mrs. Clarence Page.

Contra Costa County—Mrs. L. H. Fraser's report was read by the Secretary.

Fresno County—Mrs. Guy Manson.

Kern County—Mrs. L. A. Packard.

Lassen-Plumas County—Mrs. G. R. Fortson. No report.

Los Angeles County—Mrs. Clifford A. Wright.

Marin County—Mrs. Harry O. Hund.

Monterey County—Mrs. Lawrence Knox.

Orange County—Mrs. H. H. Sutherland's report was given by Mrs. Hall.

Riverside County—Mrs. B. E. Garrison's report was given by Mrs. Coon.

Sacramento County—Mrs. E. O. Brown's report was given by Mrs. Van Den Berg.

San Diego County—Mrs. F. G. Lindenmuller.

San Francisco County—Mrs. J. C. Geiger's report was given by Mrs. Hans Barkan.

San Joaquin County—Mrs. F. S. Maggs.

San Luis Obispo County—Mrs. Jay Butler. No report.

Santa Clara County—Mrs. Charles Moore.

Santa Barbara County—Mrs. Walter R. Hunt's report was given by Mrs. Henderson.

These reports were accepted as a whole.

The report of the Committee on Resolutions appeared in the June issue of CALIFORNIA AND WESTERN MEDICINE.

* * *

The Nominating Committee submitted the following candidates: Mrs. John Barrow* of Los Angeles County, president-elect; Mrs. Fredrick N. Scatena of Sacramento County, first vice-president; Mrs. Elliot G. Colby of San Diego County, second vice-president; Mrs. Harry O. Hund of Marin County, treasurer; Mrs. Harry E. Henderson of Santa Barbara County, recording secretary. Councilors-at-large—Mrs. W. W. Roblee of Riverside County, Mrs. Axcel E. Anderson of Fresno County, Mrs. Fred H. Zumwalt of San Francisco County, and Mrs. Arthur Newcomb of Los Angeles County.

There were no nominations from the floor. By *viva voce* vote the candidates proposed by the Nominating Committee were elected.

The following district councilors were elected:

Third District—Mrs. E. L. Markthaler of Santa Barbara County.

Fifth District—Mrs. Lawrence M. Knox of Monterey County.

Sixth District—Mrs. J. C. Geiger of San Francisco County.

Seventh District—Mrs. Harold Trimble of Alameda County.

Eighth District—Mrs. George Briggs of Sacramento County.

Ninth District—Mrs. Robert M. Furlong of Marin County.

* * *

Mrs. Andrew J. Thornton then presented Mrs. Hobart Rogers of Alameda County, the president for 1937–1938, who was enthusiastically acclaimed by the House of Delegates.

Incoming officers were introduced by Mrs. Thornton.

* * *

Credentials and Registration—Mrs. Willard Newman, Chairman, gave her final report: Total registration, 270; Board members, 18; delegates, 73; alternates, 30; Auxiliary members, 138; guests, 11.

Upon request of the Secretary, the President appointed the following committee to approve the minutes of this meeting: Mrs. William Sargent, Mrs. Frank Makinson, and Mrs. Dexter Ball.

Mrs. John Hunt Shephard, Convention Chairman, thanked her committee for their coöperation and work.

The President expressed appreciation to all those who had coöperated with her throughout the year and during the convention. There being no further business the President declared the eighth annual convention of the Woman's Auxiliary to the California Medical Association adjourned.

Respectfully submitted,

MRS. CHARLES C. HALL,
Recording Secretary.

* Deceased, July 25, 1937.

Food Poisoning.— By food poisoning is meant acute illness due to some injurious property in food. Formerly all such cases were classed under the term "ptomaine poisoning," a term which is now considered unscientific, misleading and incorrect. There are two well-recognized causes of food poisoning: (1) food infection and (2) food toxemia. Food infection is usually caused by Bacillus enteritidis or closely allied organisms of the Gaertner group.

Food toxemia is due to the toxin of a specific organism, the Bacillus botulinus. Botulism stands alone as a type of food poisoning; it differs from the usual type in that it chiefly affects the nervous system and in its high mortality rate. The bacillus grows in a great variety of foodstuffs, both of plant and animal origin, and produces its poison in the food under anaerobic conditions. There is no fever and acute gastro-intestinal disturbances usually do not occur. In Europe, the foods involved in outbreaks have been, as a rule, meats such as sausage and ham, but in this country other foods, mostly home processed, have been especially responsible, such as string beans, corn, asparagus, peas, spinach, and ripe olives.

In food infection the symptoms are nausea, vomiting, and diarrhea. The onset is usually sudden and may be ushered in with a headache and a chill. While the incubation period is usually six to twelve hours, it varies, and may be much longer than twelve hours or much shorter than four.

MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings

American Medical Association, San Francisco, June 7–11, 1938. Olin West, M. D., 535 North Dearborn Street, Chicago, Secretary.

California Medical Association, Hotel Huntington, Pasadena, May 9–12, 1938. F. C. Warnshuis, M. D., 450 Sutter Street, San Francisco, Secretary.

* * *

Colorado State Medical Society, Colorado Springs, September 22–25, 1937. Mr. Harvey T. Sethman, 537 Republic Building, Denver, Executive Secretary.

Nevada State Medical Association, Ely, September 24–25, 1937. Horace J. Brown, M.D., 120 North Virginia Street, Reno, Secretary.

Utah State Medical Association, Salt Lake City, September 2–4, 1937. F. M. McHugh, M.D., 17 Exchange Place, Salt Lake City, Secretary.

Medical Broadcasts*

Los Angeles County Medical Association

The radio broadcast program for the Los Angeles County Medical Association for the month of September is as follows:

Thursday, September 2—KECA, 10:45 a. m., The Road to Health.

Saturday, September 4—KFI, 9:15 a. m., The Road to Health; KFAC, 10:15 a. m., Your Doctor and You.

Thursday, September 9—KECA, 10:45 a. m., The Road to Health.

Saturday, September 11—KFI, 9:15 a. m., The Road to Health; KFAC, 10:15 a. m., Your Doctor and You.

Thursday, September 16—KECA, 10:45 a. m., The Road to Health.

Saturday, September 18—KFI, 9:15 a. m., The Road to Health; KFAC, 10:15 a. m., Your Doctor and You.

Thursday, September 23—KECA, 10:45 a. m., The Road to Health.

Saturday, September 25—KFI, 9:15 a. m., The Road to Health; KFAC, 10:15 a. m., Your Doctor and You.

Thursday, September 30—KECA, 10:45 a. m., The Road to Health.

American Board of Obstetrics and Gynecology.—The next written examination and review of case histories of Group B applicants by the American Board of Obstetrics and Gynecology will be held in various cities in the United States and Canada on Saturday, November 6, 1937.

The next general examination for all candidates (Groups A and B) will be held in San Francisco on June 13 and 14, 1938, immediately prior to the American Medical Association meeting.

Application blanks and booklets of information may be obtained from Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania. Applications for these examinations must be filed in the secretary's office not later than sixty days prior to the scheduled dates of examination.

* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour, and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

Meeting of the Pacific Association of Railway Surgeons.—The thirty-fifth annual meeting of the Pacific Association of Railway Surgeons will be held at Guadalajara, Mexico, October 8 and 9.

The scientific program will be given by local physicians as well as members of the seven western states. After the two-day session at Guadalajara, members will spend a week in Mexico City.

To America's Schools—Your Health!*—Once more, during the coming fall, winter, and spring, the Voices of Medicine will salute the people of America with the toast, "Your health." This is the well-known title of the radio program of the American Medical Association and the National Broadcasting Company. The coming season will be the fifth; the first two years were devoted to health talks, and the last two seasons to dramatized health messages. This year the salutation will be addressed particularly to the teachers and students in the Junior and Senior high schools in the hope that the program will be helpful in illustrating, amplifying, and enriching the health teaching in those schools. The program will be on the air while schools are in session, so that the program may be utilized directly in the thousands of schools which now have or soon will have radio and public-address systems reaching the classrooms. Programs will be announced in advance in *Hygeia,* the health magazine. While the program is planned especially for high schools, it will not sacrifice the interest which it has held for listeners in the home. To teachers, students, and stay-at-homes, the American Medical Association and the National Broadcasting Company will address their message of health education with the familiar musical theme, "Hale and Hearty," written especially for the program, and the toast, "To America's Schools—Your Health!"

The Romance of American Industry.—No phase of American history and progress is so packed with romance as that of our industrial growth. The cotton gin which permitted an infant industry to attain giant size almost overnight—the Bessemer process which makes it possible for us to produce over one-third of the world's steel supply; the discovery of Louis Pasteur which makes our enormous canning industry possible; the tireless experiments of Edison which led to the development of our world-famous electrical industry; the application of steam to transportation—these and many other developments have been the highlights and stepping-stones of American industrial progress.

To bring out the lighter and more interesting side of the history and the progress of American industry the Department of Commerce recently inaugurated a series of weekly broadcasts which have been presented to the public over a coast-to-coast network of the Columbia Broadcasting System and, to date, more than twenty-three typical American industries have been discussed.

Demand for these weekly talks has been so great that it was decided to publish those made so far in handy booklet form so that the entire series might be made available to the public under one cover.

The cost of this handbook is 10 cents per copy with a discount of 25 per cent on lots of one hundred or more mailed to a single address. Orders should be sent to Superintendent of Documents, Government Printing Office, Washington, D. C.

* From the American Medical Association, Bureau of Health and Public Instruction.

Interstate Postgraduate Medical Association of North America.—On page 47 of the back advertising section of this JOURNAL may be found an announcement of the St. Louis Assembly of the Interstate Postgraduate Medical Association of North America, giving the dates and names of the contributors to the program.

Pan-American Medical Association's Cruise-Congress.—The Pan-American Medical Association announces it will hold its Seventh Cruise-Congress aboard the well-known M/S *Queen of Bermuda*, departing from New York on January 15 for Havana. The ship will serve as hotel during the five days of the congress in the capital of Cuba. Headquarters of the convention, in Havana, will be the National Hotel, where scientific sessions will be held. Leaving Havana on January 23, the *Queen of Bermuda* will proceed to Port au Prince, Haiti, remaining there for the day, when she will sail for Trujillo City, Santo Domingo, at which city another day of meetings and interesting sight-seeing will be available for Cruise-Congress members. After leaving Trujillo City the next port of call will be San Juan, the capital of Puerto Rico. The Cruise-Congress ends the morning of January 31 upon the arrival of the *Queen of Bermuda* in New York. Travelways, Inc., are official agents of the Association. However, those interested in securing detailed information should address the Pan-American Medical Association, 745 Fifth Avenue.

Plan Health Exhibits for New York World's Fair.—A World of Health, covering nearly 82,000 square fe t of floor space with Alice-in-Wonderland-like exhibits, will be one of the features of the New York World's Fair in 1939, Grover A. Whelan, President of the Fair, announced following a meeting here with the Advisory Committee on Medicine and Public Health.

Among the Alice-in-Wonderland type of exhibits will be a room-sized model of the human brain and another of the human eye in which Fair visitors can wander and wonder. In the first will be shown all that is now known of man's thinking organ, without which there could be no World's Fair or any of the other medical and other scientific advances to be shown. Inside the model of the eye, visitors will be able to turn levers to change the eye from normal to shortsighted, farsighted, or astigmatic.

These exhibits will be housed in one part of the yet unnamed building devoted to medical sciences and public health. Man's triumph over disease and hard-gained knowledge of how to be healthy will be shown in the Hall of Medical Science and the Hall of Public Health, Homer N. Calver, Secretary of the Executive Committee of the Advisory Committee on Medicine and Public Health, stated.

Great War May Be China's Salvation, American Tells Population Students.—A war in China might be China's salvation, Dr. Frank W. Notestein, American student of population from Princeton University, told the International Congress on Population meeting in Paris. China is growing so fast that if violence does not check her numbers, the population will probably double in less than sixty-five years.

"China cannot stand such growth," said Doctor Notestein. "If it is not stopped by war and other violence, it will be by famine and disease. Here, at least, the Malthusian checks are a grim reality."

China, known to the world as a nation of antiquity, is today a nation of youth, Doctor Notestein said.

Old Age Is Rare

Old age is venerated in the Oriental countries, but men and women do not live to grow old there as they do in other parts of the world. In New Zealand, half the population live to reach the biblical standard of lifetime—three score years and ten. In China half of those coming into the world die before they reach the age of twenty-eight years.

In the United States, ninety of each hundred babies born live to celebrate their tenth birthdays. In China, 40 per cent die before they reach the age of ten. An American baby coming into the world may be expected to live to the age of fifty-nine to sixty-three. But the Chinese infant can hope only for a life of thirty-five years.

Yet, despite this terrific mortality, China's peoples are not being wiped out.

Marriage Comes Early

Marriage comes early with the Chinese. The family is as large as the farm can support.

"Virtually everyone marries as soon as possible," said Doctor Notestein. "After the age of 30, the bachelor is rare and the spinster virtually nonexistent. Monogamy is the rule."

The average bride in China is a girl of eighteen, her groom is only twenty. Contrast this with the average in New York State, where the bride is twenty-five and the groom twenty-nine.

Much ado has been made lately in the United States over child marriages, yet in New York State, outside of New York City, marriages under twenty years of age constitute only three out of each hundred males as against the 54 per cent in China, and only 30 per cent of the brides as against 81 per cent in China.

Birth Rates High

Birth rates in China, where practically everybody is married, are just about double what they are in the United States, 38.3 per 1,000 population as against 18.9 in the United States. The rate is also higher when computed on the basis of the number of married women of child-bearing age; 131 per 1,000 in the United States against 207 in China.

This picture of birth and death in China is an optimistic one, Doctor Notestein warned, because of the fact that the time selected for the survey on which these figures are based was not one of those periods of famine, flood, or scourge which are ever recurrent in China.

"If, by some magic, it suddenly became possible to eliminate the mortality from 'preventable causes' of death, sober students might ponder long before utilizing that power," said Doctor Notestein. (Copyright 1937 by Science Service.)

References to California Medical Economic Survey in California and Western Medicine.—In response to requests for references to this survey, the following list is printed:

Vol. XL, No. 6, June, 1934, pages 438 and 446. House of Delegates Minutes. Resolution No. 8. Special Survey Committee of Five.

Vol. 41, No. 3, September, 1934, page 200. Council Minutes (May 26, 1934), Items Nos. 26 and 44.

Vol. 41, No. 3, September, 1934, page 202. Council Minutes (July 28, 1934), Item No. 4. Organization of Committee of Five.

Vol. 41, No. 6, December, 1934, page 412. Editorial, The Medical Economic Survey of the California Medical Association—Importance of Coöperation.

Vol. 42, No. 1, January, 1935, page 48. Council Minutes (October 6, 1934), Item No. 3.

Vol. 42, No. 1, January, 1935, page 53. Council Minutes (November 10, 1934), Items Nos. 17 and 23.

Vol. 42, No. 2, February, 1935, page 123. Editorial, C. M. A. House of Delegates in Special Session to Hear the Report of the Committee of Five.

Vol. 42, No. 2, February, 1935, pages 129 and 130. Council Minutes (December 22, 1934), Items Nos. 8, 19, 34, and 38.

Vol. 42, No. 3, March, 1935, page 160. "California Medical Economic Survey"—Excerpts from the Preliminary Report of January 16, 1935.

Vol. 42, No. 3, March, 1935, page 188. Editorial, Important Action Taken by the California Medical Association House of Delegates at the Special Session on March 2-3, 1935.

Vol. 42, No. 3, March, 1935, page 194. House of Delegates Minutes (March 2, 1935), Report of Committee of Five.

Vol. 42, No. 3, March, 1935, page 200. House of Delegates Minutes (March 3, 1935).

Vol. 42, No. 3, March, 1935, page 213. Minutes of the Council (January 19, 1935), Item No. 6.

Vol. 42, No. 4, April, 1935, pages 323 and 324. Minutes of the Council (March 1, 1935), Items Nos. 23 and 40.

Vol. 42, No. 6, June, 1935, page 445. "Health Insurance" Pro and Con (Speeches made at Special Session of House of Delegates of the California Medical Association at Los Angeles, March 2-3, 1935).
Vol. 42, No. 6, June, 1935, page 481. House of Delegates Minutes (May 13, 1935), Annual Report of the Council.
Vol. 43, No. 1, July, 1935, page 57. House of Delegates Minutes (May 13, 1935), Report of the Committee of Five.
Vol. 43, No. 1, July, 1935, page 60. House of Delegates Minutes (May 13, 1935), Report of the Committee of Six.
Vol. 43, No. 1, July, 1935, page 79. Report of the Reference Committee on Reports of Officers and of Standing Committees, Report of the Committee of Five.
Vol. 43, No. 1, July, 1935, page 91. Council Minutes (May 12, 1935), Report of the Committee of Six, Item 3, and Report of the Committee of Five, Item 7.
Vol. 43, No. 2, August, 1935, page 160. Statement to American Medical Association House of Delegates—T. H. Kelly.
Vol. 43, No. 2, August, 1935, page 162. Council Minutes (May 25, 1935), Committee of Six, Item 4. Committee of Five, Item No. 5.
Vol. 43, No. 2, August, 1935, page 164. Executive Committee Minutes (July 13, 1935), Items Nos. 5 and 7.
Vol. 43, No. 4, October, 1935, page 304. Council Minutes (September 7, 1935), Item No. 9.
Vol. 43, No. 6, December, 1935, page 447. Council Minutes (November 2, 1935), Item No. 5.
Vol. 44, No. 1, January, 1936, page 54. Executive Committee Minutes (December 1, 1935), Item No. 8.
Vol. 44, No. 2, February, 1936, pages 123 and 124. Council Minutes (January 19, 1936), Items Nos. 21 and 37.
Vol. 44, No. 5, May, 1936, pages 424 and 426. Pre-Convention Bulletin, Report of Committee of Five, and Report of the Committee of Six.
Vol. 45, No. 5, July, 1936, page 85. House of Delegates Minutes, Report of Committee of Five and Report of the Committee of Six.
Vol. 45, No. 6, December, 1936, page 502. Council Minutes (November 7, 1936), Item No. 5.
Vol. 46, No. 2, February, 1937, page 121. Council Minutes (January 16, 1937), Item No. 5.
Vol. 46, No. 3, March, 1937, pages 190 and 191. Council Minutes (February 7, 1937), Items Nos. 6 and 19.
Vol. 46, No. 4, April, 1937, Supplement to April issue, page 53. Pre-Convention Bulletin, Report of Committee of Five.
Vol. 46, No. 5, May, 1937, page 331. Council Meeting (April 11, 1937), Item No. 4.
Vol. 46, No. 6, June, 1937, page 363. Editorial, California Medical Economic Survey.
Vol. 46, No. 6, June, 1937, pages 419 and 423. House of Delegates Minutes (May 5, 1937).
Vol. 46, No. 6, June, 1937, page 424. Council Minutes (May 2, 1937), Item No. 9.
Vol. 46, No. 6, June, 1937, pages 426 and 427. Council Minutes (May 5, 1937), Items Nos. 2 and 17.
Vol. 46, No. 6, June, 1937, page 428. Council Minutes (May 6, 1937), Item No. 6.
Vol. 46, No. 6, June, 1937, page 428. Executive Committee Minutes (May 29, 1937), Item No. 4.

Military Surgeons' Convention, Los Angeles, October 14 to 16.—The Association of Military Surgeons of the United States will hold its forty-fifth annual convention at the Hotel Ambassador, Los Angeles, October 14, 15, and 16, under the presidency of Rear Admiral P. S. Rossiter, Surgeon-General, United States Navy. This organization was founded by Colonel Nicholas Senn in 1891, and the object of the Society was: "For the advancement of military and accidental surgery and all things pertaining to health and welfare of the civilian soldier." The membership is made up of all classes of medical officers, those of the Army, Navy, Public Health Service, Organized Reserves, National Guard, Veterans Administration, and retired officers who have served in a medical capacity in any of these services. The scientific meetings are devoted to medical problems in the service which may, in any way, influence the health and efficiency of our defensive forces. They are international in scope, as foreign governments send accredited medical officers as their official representatives.

A cordial invitation is extended to all members of the profession to attend these meetings, where medical problems incident to the military personnel are taken up.

Efforts are being made for special train accommodations from Chicago for those in the East who plan on being present. Further information may be obtained from the general manager of the convention, Mr. Robert L. Lewin, 505 North Michigan Avenue, Chicago, Illinois, or from Dr. O. N. Meland, 1407 South Hope Street, Los Angeles.

The program of the meeting follows:

SCIENTIFIC PROGRAM: FORTY-FIFTH ANNUAL CONVENTION OF THE ASSOCIATION OF MILITARY SURGEONS OF THE UNITED STATES, AMBASSADOR HOTEL LOS ANGELES

Wednesday, October 13

8:00 p.m.—Meeting of Executive Council.

Thursday, October 14

9:15 a.m.—Business Meeting of the Association.
10:15 a.m.—Invocation; addresses of welcome; response; addresses; President's Address, Rear Admiral P. S. Rossiter, Surgeon-General of the Navy.
12:30 p.m.—Ladies' Luncheon.
1:30 p.m.—*Fleet Medicine*, Captain George A. Cottle, M. C., United States Navy. Discussion to be opened by Captain Lester L. Pratt, M.C., United States Navy.
2:00 p.m.—*Eyes in Aviation*, Major J. S. Chase, M. C., United States Army, Retired.
2:30 p.m.—*Ears in Aviation*, Lieutenant-Colonel I. H. Jones, Medical Reserve, United States Army. (Motion picture showing research.)
3:00 p.m.—*The Training of Medical Officers in a Major War Emergency*, Colonel Charles Decker, United States Army (D. E. O.), Retired.

Friday, October 15

10:00 a.m.—*Physiotherapy in the Next War*, Captain Leroy Lowman, Medical Reserve, United States Army. (Advisory Committee, Warm Springs Foundation.) Discussion to be opened by First Lieutenant Harold Dewey Barnard, Medical Reserve, United States Army. (Slides.)
10:30 a.m.—*Modern Typhoid Treatment*, Lieutenant Commander Albert G. Bower, MC-V (S), United States Naval Reserve. Discussion to be opened by Roy Fisk, M.D.
11:00 a.m.—*Hospital Ships in the World War—Lessons to Be Learned From Them*, Captain Lucius Johnson, M.C., United States Navy. Discussion to be opened by Captain George Cottle, M.C., United States Navy. (Slides.)
11:30 a.m.—*Anesthesia in Shock*, Lieutenant Albert Wineland, MC-V (S) United States Naval Reserve. Discussion to be opened by Eldon Tice, M.D.
1:30 p.m.—*Submarine Medicine*, Lieutenant A. R. Behnke, M.C., United States Navy. (Slides.)
2:00 p.m.—*Chairman's Address: Emergency Plastic Surgery*, Lieutenant Commander Howard L. Updegraff, MC-V (S) United States Naval Reserve. (Motion picture.)
2:30 p.m.—*The Blood Sedimentation Rate in Dental Infections*, Commander C. V. Rault, D.C., United States Navy. (Slides.)
3:00 p.m.—*The Medical Specialists Units, United States Naval Reserve*, Commander Albert Soiland, MC-V (S) United States Naval Reserve, Retired.

Saturday, October 16

10:00 a.m.—*Surgical Treatment of Low Back Pain*, Guest speaker, Colonel Howard Naffziger, Medical Reserve, United States Army. (Slides.)

Irvin S. Cobb Comments on "Allergy."—In the Los Angeles *Times*, Tuesday, August 24, 1937, in the box set aside for the "Observations" of Irvin S. Cobb, appeared the following comments on "Allergy":

"When a word gets fashionable—especially a new word which some word-smith thought up right out of his head—it gets too doggone fashionable. The same applies to old words which have been disinterred from their forgotten tombs in the dictionary.

"I seem to see grave-robbers prowling through the unabridged, starting in at 'aardvark,' which is an animal formerly common only to Africa but now frequently found in cross-word puzzles; and working on through to 'zythum,' a very strong beer drunk by ancient tribes. I guess those old-timers imbibed copiously of the brew and then named it. It doesn't sound like the sort of word a dead sober party deliberately would make up.

"Do you remember the run 'intrigued' had? I never got so sick of a word in my life. And then along came 'provocative,' and it turned out to be a pest. People went around just looking for a chance to work 'provocative' into

the conversation. The only way to lick 'em was to pretend to be deaf and dumb.

"And now the reigning favorite is 'allergic.' Folks spout it everywhere, whether they know what it means or not. I don't mind saying I'm getting awfully allergic to 'allergic.' There must be many others like me.

"Brothers, let's form the Nix On Allergic League."

University of California Medical School Staff Changes. — Changes on the staff of the University of California Medical School, which became effective July 1, 1937, follow:

PROMOTIONS

Ottiwell W. Jones, Jr., from assistant professor of surgery to associate professor of surgery.

Paul S. Campiche, from instructor in surgery to assistant clinical professor of surgery.

Thomas F. Mullen, from instructor in surgery to assistant clinical professor of surgery.

Mary F. Montgomery, from instructor in surgery to assistant clinical professor of surgery.

Robertson Ward, from instructor to assistant clinical professor of surgery.

Leon Goldman, from instructor to assistant professor of surgery.

Dorothy A. Wood, from assistant clinical professor to associate clinical professor and anesthetics.

Clark M. Johnson, from assistant clinical professor to associate clinical professor of urology.

Francis J. Rochex, from instructor to assistant clinical professor of medicine.

Isabella H. Perry, from instructor to assistant professor of pathology.

Warren D. Horner, from assistant clinical professor to associate clinical professor of ophthalmology.

Minnie B. Goldberg, from assistant to instructor in medicine.

Maurice E. Leonard, from assistant to instructor in medicine.

John B. Lagen, from resident associate in medicine to instructor in medicine.

Mayo H. Soley, from resident assistant in medicine to instructor in medicine.

Nathan Rudo, from assistant in pathology to instructor in pathology.

Edward Campion, from assistant in pediatrics to instructor in pediatrics.

Philip J. Lipsett, from assistant in surgery to instructor in surgery.

William K. Murphy, from assistant in urology to instructor in urology.

David O. Harrington, from assistant in ophthalmology to instructor in ophthalmology.

Arthur J. Williams, from assistant in roentgenology to instructor in roentgenology.

CHANGES OF TITLE

Albert J. Houston, from clinical professor to clinical professor emeritus of otorhinolaryngology.

Herbert C. Moffitt, from clinical professor to clinical professor emeritus of medicine.

NEW APPOINTMENTS

Paul M. Aggeler, assistant in dermatology, University of California Hospital.

Harry J. Borson, assistant in medicine, University of California Hospital.

Gwendolyn Campion, assistant in pediatrics, 1595 Greenwich Street, San Francisco.

Edmond D. Butler, assistant in surgery, San Francisco Hospital.

Amos U. Christie, assistant professor in pediatrics, University of California Hospital.

Richard I. Crone, assistant in surgery, University of California Hospital.

Karl B. Eichorn, assistant in pathology, San Francisco Hospital.

Walter W. Dolfini, assistant in ophthalmology, University of California Hospital.

Ernest O. Gunderson, assistant in ophthalmology, San Francisco Hospital.

Charles Gurchot, instructor in pharmacology, University of California Medical School, San Francisco.

Paul T. Hahman, assistant in pediatrics, University of California Hospital.

Walter W. Herrmann, assistant in medicine, University of California Hospital.

T. Richard Hofmann, assistant in obstetrics and gynecology, University of California Hospital.

R. Bruce Henley, assistant in surgery, University of California Hospital.

Verne T. Inman, assistant in orthopedic surgery, University of California Hospital.

Donald J. Jones, assistant in otorhinolaryngology, University of California Hospital.

Katherine H. Leicester, assistant in medicine, University of California Hospital.

Purvis L. Martin, assistant in obstetrics and gynecology, University of California Hospital.

Alexis G. Maximov, assistant in obstetrics and gynecology, San Francisco Hospital.

Henry Miller, assistant in medicine, San Francisco Hospital.

Harry E. Peters, assistant in medicine, San Francisco Hospital.

Gordon Richardson, assistant in pediatrics, San Francisco Hospital.

George H. Schade, assistant in pediatrics, University of California Hospital.

Edward Shapiro, assistant in medicine, University of California Hospital.

Robert A. Stewart, assistant in dermatology, University of California Hospital.

Maurice L. Zeff, assistant in surgery, University of California Hospital.

Julius Zelman, assistant in medicine, San Francisco Hospital.

Bret W. Smart, instructor in orthopedic surgery, San Francisco Hospital.

Morgan B. Aynesworth, assistant in medicine, University of California Hospital.

Donald R. Smith, assistant in Urology, University of California Hospital.

Richard A. Peterfy, assistant in urology, University of California Hospital.

Maurice Eliaser, Jr., assistant in medicine, University of California Hospital.

George D. Husser, assistant in pediatrics, University of California Hospital.

SABBATICAL LEAVE

Gordon E. Hein, associate professor of medicine, until June, 1938.

Edward S. Sundstroem, associate professor of biochemistry, until November, 1937.

LETTERS

Concerning sulfanilamide.

DEPARTMENT OF PUBLIC HEALTH

San Francisco,
August 26, 1937.

To the Editor:—I am enclosing copy of Executive Order Number 191, issued by me today in regard to the use of sulfanilamide. I believe this will be of interest to you.

Civic Center. Sincerely,

J. C. GEIGER, M.D.,
Director of Public Health, City and County of San Francisco.

* * *

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC HEALTH

August 26, 1937.

Executive Order Number 191

To Clinicians in the Department of Public Health as to policy:

Much discussion has occurred as to the use of sulfanilamide in certain infections, especially in children. The publicity attendant to this drug has been voluminous, and its use has been stressed by many medical writers. There are, however, a number of important clinical considerations in the use of this drug, and as far as the Department of Public Health and its institutions are concerned, certain criteria must be followed.

There must not be any indiscriminate use.

There must be a clear indication for its use.

The ordinary care and routine treatment must have been used and found inefficient.

Patient must be carefully watched for evidence of (1) liver injuries, (2) blood-cell injuries, and (3) cyanosis.

It is true that the drug may be rapidly excreted and that recovery from such injuries are very prompt. In other words, this drug must be administered with care as to dosage in relation to body weight, and only by physicians who have all of the laboratory facilities for careful observation of the patient.

J. C. GEIGER, M.D.,
Director.

Concerning "California and Western Medicine":

ARKANSAS MEDICAL SOCIETY
OFFICE OF THE SECRETARY

Fort Smith, Arkansas,
August 17, 1937.

To the Editor:—From a close acquaintance of now over three years with CALIFORNIA AND WESTERN MEDICINE, I wish to express my appreciation for your most excellent journal. I take time each month to thoroughly peruse its columns; in fact, I have no doubt but that I do this more completely than many a member of your own Association.

For this Society, we also appreciate your courtesy in sending your publication to our American Medical Association delegates, thereby permitting them to acquire a close knowledge of the plans and activities of your great Association.

With kindest regards,

Very truly yours,

——— W. R. BROOKSHER.

Concerning the scope of chiropractic.

BOARD OF MEDICAL EXAMINERS
STATE OF CALIFORNIA

San Francisco, California,
August 13, 1937.

Re: Louis LaVine, D.C.*

To the Editor:—The enclosed report, written by Special Agent Hunter on our experience in attempting to prosecute Louis LaVine, D.C., for practicing beyond the scope of his chiropractic certificate, is self-explanatory. The publication of this report may be advisable, in an effort to show the medical men of this State the difficulties encountered in attempting to curb the inroads made by the various cultists into the practice of medicine.

Very truly yours,

C. B. PINKHAM, M.D.,
Secretary-Treasurer, Board of Medical Examiners.

* * *

San Francisco, California,
August 9, 1937.

Re: Louis LaVine, D.C.

Dr. C. B. Pinkham,
Secretary-Treasurer, Board of Medical Examiners,
450 McAllister Street,
San Francisco, California.

Dear Doctor Pinkham:

Following my report of July 2, 1937, I attended, on July 27, 1937, the jury trial of Louis LaVine, D. C., in the Justice Court of Redwood Township, Los Gatos, A. H. Belle presiding.

LaVine was defended by M. James McGranaghan, D.C., and the case was prosecuted by Deputy District Attorney A. Andreuccetti.

Mrs. Frances Wallace, her husband Charles O., and her son, Charles F. Wallace, all testified concerning the setting of her arm by LaVine and his subsequent care. They also related how LaVine had prescribed, among other things, a half-ounce of Lloyd's Specific Cactus (Cactus Oil is in the United States Formulary).

G. R. Burtner, Pharmacist, testified he had filled the prescriptions and made copies of them. Both the original and copies were introduced in evidence.

Also testifying for the prosecution were Richard E. Graun, M.D., Joseph B. Josephson, M.D., and R. S. Kneeshaw. M.D. The three latter testified regarding the presence of Cactus Oil in Materia Medica and that the setting of a fractured arm was the practice of surgery. Doctor Graun, in addition, introduced an x-ray, showing both of Mrs. Wallace's arms; the arm set by LaVine showed osteoporosis, and it was the contention of prosecution witnesses that this condition was caused by the arm being immobilized over a period of time.

Ernest H. Mimms, D.C., who conducts the Basic Foods Inc., Los Angeles, testified that the "G. E. *V*" was animal and vegetable dehydrates and that "G. E. *XX*" was composed of a dehydrated brain and heart substance. Both of these had been furnished by LaVine to Mrs. Wallace.

Blaine Raney, D.C., now a teacher at the Standard Chiropractic College, testified that his school taught the setting of fractures.

As evidence of other acts on LaVine's part, William V. Voibles of the Los Gatos Pharmacy, testified for the prosecution and told of refusing to fill a prescription by LaVine written for a 50 per cent solution of phenol and glycerine for use in a child's ear.

Despite all prosecution testimony, which was introduced over a period of two days, on July 29, 1937, the jury, after taking three ballots and having considered the matter for half an hour, acquitted LaVine.

Very truly yours,

THOMAS P. HUNTER,
Special Agent.

* * *

Agent's Report of Investigation in Matter of Louis LaVine, D.C., on Charge of Violating Section 17, Medical Practice Act

Investigation of a complaint that Louis LaVine, Los Gatos licensed chiropractor, had violated the Medical Practice Act in practicing outside the limitations of his license, was made by the undersigned, and the following facts revealed:

On February 24, 1937, following a fall in which she hurt her arm, LaVine was called in to examine Mrs. Frances Wallace, 225 North Santa Cruz Avenue, Los Gatos. In the presence of witnesses, LaVine examined the arm at about 1:00 p. m. He prescribed hot and cold epsom salt packs for her arm and an injury in the occipital region, then returned about 5:00 p. m., when he applied a splint to the injured arm. An x-ray was not taken until March 5, 1937, at which time a San Jose physician reported the plate showed "a transverse linear fracture less than one centimeter above the wrist joint." LaVine changed to successively smaller splints on March 19 and 25.

On the day following his first call, LaVine left a prescription (in the form of a "memorandum"—without signature, but on the reverse of one of his advertisements) for a half-ounce of Lloyd's Specific Cactus, which he later told me were for Mrs. Wallace's nerves. LaVine also, during the course of treatment, prescribed "Vita-Minerals" and furnished Mrs. Wallace garlic-oil capsules. In addition, he administered electrotherapy in an effort to restore the use of the arm.

All of the above was verified by LaVine in conversation with me at the time of his arrest.

Section 7 of the Chiropractic Act, under which LaVine is licensed, defines the practice of chiropractic, and concludes, ". . . but shall not authorize the practice of medicine, surgery, osteopathy, dentistry or optometry, nor the use of any drug or medicine now or hereafter included in materia medica."

Respectfully,

T. P. HUNTER,
——— *Special Agent.*

Concerning a book, "To Drink or Not to Drink."

To the Editor:—Just received a book, "To Drink or Not to Drink," by Charles H. Durfee, Ph.D., from Longmans, Green and Company, New York and Toronto, price $2, publication date September 1, 1937, with the request that I review it for CALIFORNIA AND WESTERN MEDICINE, and send them a copy of the issue containing said review.

In this book Durfee is not worried about the drinker, but is worried about the drunkard. That is to say the one who practices "ascapism" via the alcohol route. This type he calls a problem drinker. He really helps such folks with the practical psychology and education, which is good medicine. This he has been doing on his little Rhode Island farm and in their homes—hence this excellent little book to give knowledge of his experience to a wider field.

He maintains that it is silly to expect bolts and bars to cure the dypsomania, because it is not a disease but a social symptom: a protest against life's rough goings. By showing up the ghost which the individual is trying to run away from the author frees the patient from his chronic fear and, presto, a new individuality—the real man appears! Not only doctors of medicine, but laymen and the in-betweens will read this book with profitable understanding. It will help many to understand one's own self—our worst enemy!

3780 Wilshire Boulevard. JOHN W. SHUMAN, M.D.

* See also item in State Board of Medical Examiners in this issue, page 216.

Concerning inactive duty training: Medical Reserve officers.

To the Editor:—The next annual inactive duty training period for Medical Reserve officers of the Army and the Navy will be held in Rochester, Minnesota, at the Mayo Clinic, under the military supervision of the surgeon of the Seventh Corps Area (Army) and the surgeon of the Ninth Naval District (Navy) from October 3 to 16, inclusive.

The morning hours are devoted entirely to professional training given by the various departments or sections of the clinic at its several hospitals and institutions. The afternoon hours are devoted to lectures on professional subjects or military medicine. The evening hours are given to lectures by distinguished visitors and the presentation of medico-military subjects.

The meeting is given for Reserve officers of the Army and the Navy, and due military credits are given for attendance.

In past years we have had a number of applicants who have seen notices in your journal or in the *Journal of the American Medical Association.* We would be very glad indeed to have you use this data as a news item as you see fit.

Sincerely yours,

KENT NELSON,
Colonel, Medical Corps, Surgeon.

* * *

HEADQUARTERS SEVENTH CORPS AREA
OFFICE OF THE SURGEON

Omaha, Nebraska,
August 2, 1937.

Subject: Medico-Military Inactive Duty Training, Mayo Foundation.

To Medical Department Reserve Officers:

1. The ninth annual training course for Medical Department reservists of the Army and Navy will be held at the Mayo Foundation, Rochester, Minnesota, October 3 to 16, 1937.

2. This training course was first inaugurated by the Seventh Corps Area at the request of the Mayo Foundation to give training in military medicine to the young medical men connected with the Foundation. Other Reserve officers requested permission to enroll and to take advantage of the opportunity to attend the clinical presentations during the morning hours. Such permission was granted and attendance has become so increasingly popular that it is now necessary to limit enrollment.

3. The program will follow the plan of past years. The morning hours will be devoted entirely to professional work in special clinics and study groups. Officers in attendance may select the course they wish to follow from the wide variety of presentations offered. The afternoon and evening will be devoted to a medico-military program under the direction of the Surgeon of the Seventh Corps Area (Army) and the Surgeon of the Ninth Naval District (Navy).

4. This training is on an inactive duty status and is without expense to the Government. Enrollment is open to all Army and Navy reservists of the medical departments in good standing. Applications should be submitted to the Surgeon of the Seventh Corps Area, Omaha, Nebraska, or to the Surgeon of the Ninth Naval District, Great Lakes, Illinois. Enrollment is limited to two hundred.

5. The Surgeons-General of the Army and Navy have signified that they will attend, and it is believed that the Surgeon-General of the Public Health Service will also appear on the program.

KENT NELSON,
Colonel, Medical Corps, Surgeon.

Concerning medical, dental, and pharmaceutical cooperation.

San Francisco,
August 16, 1937.

To the Editor:—Hearty congratulations on your fine editorial on the united actions of the professions of dentistry, medicine, and pharmacy. Yours is one of the most sensible statements I have ever seen on the matter.

Why not ask dentistry and pharmacy to send delegates to the California Medical Association meetings? We are doing our best at the Medical Center of the University to promote close coöperation between medicine, dentistry, and pharmacy in the interests of public health and welfare.

University of California Medical School.

Sincerely yours,

CHAUNCEY D. LEAKE.

Recognition of Opticians for Sight Testing in England.—Surprise and dissatisfaction have been widely expressed in the medical profession by the proposal of the Ministry of Health to recognize opticians for sight testing in the regulations for the provision of spectacles under the national health insurance act. The *British Medical Journal* terms the proposal "profoundly disturbing" and points out that it is considerable advance in the direction of statutory registration of sight-testing opticians, which has not only been vigorously opposed by the British Medical Association during the past thirty years, but has been reported on unfavorably by governmental departmental committees. In a letter to the *Times,* Dr. G. C. Anderson, medical secretary of the Association, says that the regulation is contrary to the whole weight of expert opinion. An analysis of thirty thousand consecutive cases of ocular disturbances showed that in 27.6 per cent these were due to cause other than errors of refraction, while in 7 per cent there were similar disturbances without any error of refraction. Opticians, ignorant of diseases of the eye, will in most cases prescribe glasses for all sorts of trouble. In a letter to the *Times,* Sir John Parsons, Past President of the Royal Ophthalmological Society, states that it is by no means infrequent for the ophthalmic surgeon to see cases of grave loss of vision which has resulted from sight-testing opticians failing to recognize disease conditions. He has had patients suffering from chronic glaucoma thus overlooked and in one case from malignant intra-ocular tumor. Mr. Malcolm Hepburn, Honorary Secretary of the Council of British Ophthalmologists, points out that there are a great many varieties of the normal which, to the improperly educated observer, may simulate disease conditions of the eye; and it often requires all the medical training of the ophthalmic surgeon to decide whether they are of importance or not. When the sight-testing optician observes them, he advises the patient to seek medical opinion, thereby creating fear of danger to the sight, which it is sometimes very difficult for the ophthalmic surgeon to dispel. Had he been consulted in the first instance, this would have been avoided. Secondly, the optician seems to have little idea regarding the relation between errors of refraction and eye diseases, and this leads him to order glasses "to prevent loss of sight." Thus the patient is frightened into wearing glasses that may be entirely unnecessary.—London News Letter, *Journal of the American Medical Association.*

Pregnancy and Its Complications.—At the recent session of the American Life Convention Dr. J. A. Thornley Bowman, associate medical director, London Life, London, Ontario, read a paper on "Pregnancy and Its Complications." Dr. H. W. Gibbons, medical director, California-Western States Life, Sacramento, California, in the discussion said definite insurance appraisals of such risks can be made; there appears to be an insurable interest, and so normal a life function surely could be underwritten. More uniform handling of such risks by companies would help to stabilize and make these risks less hazardous. He noted that the United States still has the highest maternal death rate of any civilized country, that of Holland, Sweden, and Japan being only one-third to one-half so great. He said it appears 60 per cent of these deaths are preventable. In this country, he said, there appears to be an orgy of obstetrical interference in child-birth, due perhaps to the demand for quick, painless births. The modern mother, he concluded, would do well to go back to the "horse and buggy" days and have her children naturally except when emergency would require the physician's aid. He also noted the abortion problem, with estimated 700,000 abortions annually in this country. Legislation will not stop the practice, he said; the unwanted baby should be avoided before it must be disposed of.

MEDICAL JURISPRUDENCE†

By HARTLEY F. PEART, ESQ.
San Francisco

The Practice of Medicine and the Courts: Legal Status of Roentgenology, Clinical Pathology, and Anesthesiology

There are hundreds of cases in the United States dealing with the problem of what is and what is not included within the practice of medicine and surgery. In many cases the problem has been relatively free of doubt. In other cases, however, where particular subjects within the field of medicine have been concerned, the courts have experienced considerable difficulty. Perhaps the most perplexing have been roentgenology, clinical pathology, and anesthesiology.

Although there are a great number of cases containing discussions pro and con on the subjects of roentgenology, clinical pathology and anesthesiology and their status with respect to the practice of medicine, there are relatively few cases containing actual decisions on these issues. In most of the cases which have arisen, the question has been incidental to another issue. For example, in several actions based upon the alleged negligence of roentgenologists, a collateral issue has arisen as to whether or not persons trained in roentgenology, but not licensed physicians, could qualify as expert witnesses. In other cases of alleged negligence, the courts have had to decide whether or not a roentgenologist is to be governed by the standard of care which applies to physicians. It is regrettable that so many of the cases which discuss this problem have been proceedings in which the question was only a minor issue because the result has been that in many cases the point has not been given a great deal of time and attention by counsel and the courts. Considerable confusion and some conflict in the cases has arisen, due in large part, it is believed, to the casual way in which the problem has been handled—through no fault of anyone.

As a consequence, in the relatively few cases in which the question, is or is not roentgenology, clinical pathology, or anesthesiology, the practice of medicine, has been the main issue to be decided, the conclusions of the courts have been influenced by other decisions in which the point was only a side issue. This influence has not always had a tendency to produce a rational conclusion. We may illustrate this point by discussing a few cases which directly involve roentgenology, clinical pathology, and anesthesiology.

Roentgenology.—The case relating to roentgenology which has seemed to receive the greatest amount of publicity (no doubt due, in part, to its strange conclusion) is *Doumit* vs. *Diemer,* 144 Ore. 36, 23 Pac. (2d) 918, 103 A. L. R. 1247, which was decided in 1933. The Oregon court held that the practice of roentgenology is not included in the practice of medicine, and the amazing conclusion is then reached that a corporation may lawfully practice roentgenology. The Court states:

> It is competent for corporations to carry on the *business* of roentgenology.

The main issue in this case was whether or not the defendant was guilty of negligence. The portion of the opinion which discusses roentgenology is merely incidental to the decision on the main point. We believe the conclusion of the Court that roentgenology is not a part of the practice of medicine is erroneous, and we are led to believe that the result was reached in part because of insufficient consideration of the problem. Yet, whenever a case does arise which has for its main issue the problem of the status of roentgenology in relation to the practice of medicine, *Doumit* vs. *Diemer* will no doubt be cited and relied upon as authority for the untenable proposition which it espouses.

There are a number of well-reasoned cases which reach a contrary conclusion, but the fact remains that the decision of the Oregon court means that there is a conflict of judicial opinion on the subject.

Clinical Pathology.—This subject has, likewise, been treated quite incidentally in several cases. However, it has been more fortunate than roentgenology. The leading case, with respect to clinical pathology, is *Granger* vs. *Adson* (Minn. 1933), 250 N. W. 722. This case held that a layman who was furnishing, for a fee, subscribers with the result of urinalysis and blood-pressure tests, and either himself advising or passing on to subscribers the advice received by him from pathologists who made the urinalysis, was held to be unlawfully engaged in the practice of medicine. The Court specifically held that the procedures involved were an integral part of the practice of medicine.

Anesthesiology.—This subject has been the main issue in two leading cases. It first came before the Supreme Court of Kentucky in *Frank* vs. *South,* 175 Ky. 416, 194 S. W. 375, where it was held that the practice of anesthesiology did not constitute the practice of medicine within the meaning of the applicable Kentucky statute. It is to be noted that *Frank* vs. *South* involved the administration of general anesthetics by a nurse and that the Kentucky statute defining the practice of medicine specifically excluded "trained or other nurses." Later the same question came before the Supreme Court of California in *Chalmers-Francis* vs. *Nelson,* 6 Cal. (2d) 402. The California Court likewise held that the practice of anesthesiology is not the practice of medicine within the meaning of the California Medical Practice Act. The Court's opinion held that:

> . . . everything which was done by the nurse, Dagmar A. Nelson, in the present instance, and by nurses generally, in the administration of anesthetics, was and is done under the immediate direction and supervision of the operating surgeon and his assistants. Such method seems to be the uniform practice in operating rooms. There was much testimony as to the recognized practice of permitting nurses to administer anesthetics and hypodermics. One of the plaintiffs' witnesses testified to what seems to be the established and uniformly accepted practice and procedure followed by surgeons and nurses, and that is that it is not diagnosing nor prescribing by the nurses within the meaning of the Medical Practice Act. We are led further to accept this practice and procedure as established when we consider the evidence of the many surgeons who supported the contention of the defendant nurse, and whose qualifications to testify concerning the practice of medicine in this community and elsewhere were established beyond dispute.

The cases relating to roentgenology, clinical pathology, and anesthesiology may be summarized as follows: With respect to roentgenology, the courts are divided—some stating that it is the practice of medicine, and others expressing the opinion that it is not. With respect to clinical pathology, judicial opinion seems to adhere to the view that the procedures involved therein are an integral part of the practice of medicine, while with respect to anesthesiology the courts have taken the view that the practice of anesthesiology is not part of the practice of medicine.

In all court actions the judge must necessarily reach a decision from the evidence adduced and the arguments of counsel. If a particular point is not fully covered in the evidence, one cannot justly criticize a judge for failing thoroughly to grasp the fundamentals of that point. Therefore, if one is to expect the courts to give careful consideration to these subjects and to render opinions based upon a thorough knowledge of the subject matter, it is vital that in every case in which the points are involved ample evidence be submitted to the court and then be carefully analyzed by counsel who have received a thorough explanation of the fundamentals involved from one who is qualified to do so.

It is extremely easy for persons who are not physicians or who are not skilled in the sciences under discussion to stray along side-roads and bypaths. For example, it has been seriously urged of late that the practice of radiology can be divided into a technical and a professional side and that the taking of a roentgenogram is no different from the taking of an ordinary photograph and is, therefore, merely a technical procedure. In fact, a similar misunderstanding of the nature of a roentgenogram caused a California District Court of Appeal to apply the rules of law governing the admission in evidence of enlarged photographs to *enlarged photographs of roentgenograms!* In *Sim* vs. *Weeks,* 7 Cal. App. (2d) at 40-41, the Court said:

> Appellant (physician) next assigns as prejudicial error the admission in evidence, over his objection, of enlarged

†Editor's Note.—This department of CALIFORNIA AND WESTERN MEDICINE, containing copy submitted by Hartley F. Peart, Esq., will contain excerpts from and syllabi of recent decisions and analyses of legal points and procedures of interest to the profession.

photographs of the x-rays. "While a picture produced by an x-ray cannot be verified as a true representation of the subject in the same way that a picture made by a camera can be, the rule in regard to the use of ordinary photographs on the trial of a cause applies *to photographs of the internal structure and conditions of the human body taken by aid of x-rays, and such a photograph*, when verified by proof that it is a true representation (citing *Kimball* vs. *Northern Electric Co.*, 159 Cal. 225 (113 Pac. 156), among others), is admissible in evidence." (Citing *Bruce* vs. *Western Pipe etc. Co.*, 177 Cal. 25 (169 Pac. 660), among others; 22 C. J. 916; see, also, note in 77 A. L. R. 946.) *"It is no objection to the admissibility of a photograph that it is enlarged, showing the subject or object magnified, where this does not have a tendency to mislead.* Photographs of instruments already in evidence which are so enlarged as to make the proportions plainer and to illustrate the testimony of the witnesses may go to the jury in the same way as would a magnifying glass or microscope." (22 C. J. 918.) It is for the trial court to determine from the evidence before it whether enlargements of photographs already in evidence are correct representations thereof, and its ruling will be sustained unless it is apparent that there has been an abuse of discretion.

It is apparent that the Court did not fully comprehend the vital distinction between a photograph and a roentgenogram. To the person untrained in roentgenology, the decision in *Sim* vs. *Weeks* and the "technical side—professional side" theory may appear somewhat reasonable and logical, but when it is explained that a roentgenogram and a photograph are entirely different, that photography is a mechanical process that records upon a film reflected light of varying intensity and produces a representation of the surface of physical objects as they appear to the human eye, while roentgenography does not record reflected light but is the process by which the effect of x-rays, passing through various human tissues, is recorded upon a film and thereby produces a record of the transparency of the various tissues to the x-ray, it is readily enough understood that the analogy between photography and roentgenology must fail.

SPECIAL ARTICLES

RATTLESNAKE-BITES

Health officers who may be interested in the life history of rattlesnakes, including habitats, control, bite and treatment, together with list of species and subspecies, will find a complete report in a recent publication of the San Diego Society of Natural History. It was written by Laurence M. Klauber, Curator of Reptiles and Amphibians for the Society. A nominal price, to pay the cost of publication, has been set.

Concerning rattlesnake bite and its treatment, the author makes the following statement:

"Although rattlesnakes are moderately plentiful in many areas of the United States which are frequented by large populations, especially on week-end excursions, hunting or fishing trips, or by hikers or campers, rattlesnake bite constitutes a relatively small accident risk; not to be compared, for example, to the chance of a highway accident. The naturally inoffensive and secretive character of the snakes, and the fact that people going abroad are usually well protected about the legs, reduce accidents. Only in a few areas of our country is the snake-bite problem sufficiently important to warrant much attention.

"The gravity of a rattlesnake bite is something which cannot be closely defined or predicted any more than one might predict the seriousness of a fall, without knowing the exact circumstances surrounding the accident, such as the height of the fall, the character of the surface struck, etc. And in a snake-bite case the conditions are even more obscure, since there are important factors which cannot be ascertained, even after the accident has occurred. So no one can give an offhand opinion as to the gravity of such a case; and correspondingly, while there should be no desire to exaggerate the gravity, it will be best, in the interest of safety, to overtreat rather than undertreat the case, provided a proper treatment is used. In any event the victim should remain under close observation for at least forty-eight hours.

"Some of the more important variable factors involved in snake-bite cases are the following:

"1. The size, vigor, and health of the victim, these being important in determining absorptive power and resistance to venom.

"2. The allergy complex of the victim; his susceptibility to protein poisoning; sensitization (anaphylaxis), or partial immunity imposed by previous bites and treatment. Some individuals are so susceptible to venom that the mere handling of it causes typical asthmatic symptoms lasting for twenty-four hours or more; most persons under similar circumstances are entirely unaffected.

"3. The psychological condition and nature of the victim; extreme fear, and apprehension will affect heart action and, therefore, rapidity of absorption; and it is not impossible that there may be more direct reactions.

"4. The site of the bite, which will be less dangerous in the extremities, or in tissues where absorption will be less rapid (fat, for example), as compared with a bite near the vital organs or penetrating a vein.

"5. The nature of the bite, whether a direct stroke with both fangs fully imbedded, or a glancing blow or scratch. The movement of the victim (jumping backward, for instance) may cause a partially ineffective bite; or a bone may be struck, thus causing imperfect penetration. The snake may misjudge his distance and have the fangs only partially erected at contact, thus resulting in only slight penetration; or he may, for the same reason, eject venom before the fangs are imbedded.

"6. The protection afforded by clothing, which, by interposing thickness, will permit less depth of fang penetration, and will cause the external and harmless absorption of part of the venom. Only the point of the fang may penetrate the skin, in which case there will be no venom injection, for the orifice is well above the tip.

"7. The number of bites; occasionally an accident involves two or more distinct bites.

"8. The length of time the snake holds on; it may withdraw or be torn loose before injection takes place. This is likely to be more important with the elapine snakes, with their less specialized fangs, than with such long- and hook-fanged snakes as the rattlers.

"9. The extent of the anger or fear upon the part of the snake. The muscles which wring the venom glands and thus inject venom are separately controlled from the biting mechanism. The snake's natural tendency is to withhold venom, since this is his means of securing prey; but if hurt or violently angered he is likely to inject a large part of the venom contained in the glands.

"10. The species and size of the snake, affecting venom toxicity and physiological effects, venom quantity, and (by reason of length and strength of fangs) depth of injection. The age of the snake is, likewise, important; not only are young snakes less dangerous because of their smaller size (and, therefore, reduced quantity of venom), but also the venom is less toxic, judging from the reduced proportional recovery of solids upon evaporation. Snakes which have passed their prime also probably secrete less venom and of a reduced quality.

"11. The condition of the venom glands, whether full, or partially depleted or evacuated by reason of recent feeding, defense, ill health, or captivity. The season of the year (proximity to aestivation or hibernation) may also cause a variation, but this is not definitely known.

"12. The condition of the fangs, whether entire or broken, lately renewed or ready for shedding.

"13. The presence, in the mouth of the snake, of various microörganisms, some of which, gaining access to the wound, may, abetted by the antibactericidal effect of the venom, entail serious sequelae.

"14. The nature of the instinctive first-aid treatment, if any, such as suction, or circulation stoppage by pressure.

"To conclude, with variable factors of such importance, it is to be expected that some cases will prove extremely grave, whereas others may cause little or no discomfort. It is the latter class (which really require no treatment) that have given an entirely fictitious value and reputation to some of the remedies which have been proposed, for

the patient recovers in spite of the remedy, rather than through its use.

"In general, it can be said that even with the crudest treatment, or with no treatment of any kind, rattlesnake bite would probably not be fatal in more than 10 per cent of the cases, although greater with some especially dangerous species. Snake bite is likely to be more serious in the case of children, since the ability of a body to absorb venom without fatal results, varies with the weight. With proper treatment the mortality from rattlesnake bite should be less than 3 or 4 per cent.

"In the case of an accident of this kind, be sure that the snake which has inflicted the wound is a venomous snake. Many harmless snakes will bite fiercely when trod upon or captured, but their bites are without any untoward effects; they are no more serious than a scratch and should be given a like antiseptic treatment. Nevertheless, there are authentic instances in which grave results, and even death, have been caused by fear following the bite of a harmless snake.

"The actual injection of rattlesnake venom into a wound is followed immediately by severe local pain in almost every case, and this should be used as a criterion in determining whether the bite is that of a rattler, and if venom has actually been injected. With most species a marked swelling is also evident within a very short time.

"Assuming that a person has actually been bitten by a rattlesnake, the following procedure should be adopted by the victim and his companions, if any be present:

"1. The victim should not become unduly alarmed or excited, and should not run, for to do so will speed up the circulation and the rapidity with which the venom is absorbed. Remember, that few cases of rattlesnake bite are fatal.

"2. Apply a tourniquet between the bite and the heart. This may be a shoestring, necktie, or a rubber band. Rubber tubing makes the best tourniquet. Do not tie it too tightly. Complete stoppage of the circulation is unnecessary and undesirable, but the venous flow should be impeded. Loosen the tourniquet briefly at fifteen-minute intervals.

"3. With a sharp instrument, such as a razor blade or a knife, make a cross-incision over each fang mark, or connect the two with a single incision. The depth should be about equal to that of the fang, say a quarter of an inch if the snake is of moderate size. Before using, sterilize the cutting instrument if possible, using iodin, alcohol, or the flame of a match.

"4. Apply suction to the wound and the incisions thus made, either with the mouth or using one of the cupping or suction devices [1] which have been placed in first-aid kits for this purpose. Apply this continuously for at least half an hour. In a healthy person with good teeth there need be no fear of getting venom into the mouth or stomach with untoward results.

"5. If antivenin is available, use it in accordance with the instructions accompanying the syringe. However, do not depend upon it as a cure-all. Remember that antivenin and suction are not mutually exclusive; use antivenin if available, but the suction procedure should be carried through in any case.

"6. If swelling or discoloration progresses up the limb, additional cross-incisions should be made above this point and suction should be applied there, the tourniquet having been moved above the swelling. It is best to put on a second tourniquet before removing the first.

"7. If the patient is faint, give a cup of strong coffee or a teaspoonful of aromatic spirits of ammonia in a glass of water.

"8. Get the patient to a doctor or hospital as soon as possible, securing a physician experienced in previous snake-bite cases if one be available.

"9. Do not do any of the following things: Do not use potassium permanganate. Do not give whiskey. Do not burn or cauterize the wound, since this will interfere with the all-important suction and drainage. Do not use "folklore" remedies; they are a waste of time when time is valuable.

"10. If the physician in charge of the case has not had previous experience, he can secure advice from the United States Public Health Service by wire. The case should be closely watched for the first twenty-four and, preferably, the first forty-eight hours. Some cases have been lost because the decline in the prominent hemorrhagic symptoms (evidenced by local swelling and discoloration) seemed to indicate that the danger was past, to be followed by a sudden and unexpected onset of neurotoxic symptoms. It is suggested that physicians called upon to treat rattlesnake bite, study the publications of the United States Public Health Service, or those of Dr. Dudley Jackson of San Antonio, who has had a wide experience in this field; also the literature accompanying some of the suction devices now on the market in safety-first kits,[2] and the publications accompanying antivenin ampouls contain much useful information. It should be remembered, however, that these directions may be slightly biased, as there has been some factional disagreement concerning the relative merits of antivenin and suction. I repeat that antivenin and suction are not mutually exclusive remedies; both should be used extensively in serious cases. The victim should always be typed so that a blood transfusion, if necessary, may be made without delay. Neurotoxic symptoms, frequently involving paralysis of the respiratory center, call for additional antivenin treatment. The physician will use intravenous injections of glucose and normal salt solution as necessitated.

"The carrying of kits containing suction devices (there are several good ones on the market) is to be recommended to campers, hunters, or others going into rattler-infested country. This is said without any desire to frighten people or to exaggerate the chance of snake bite, which is indeed remote. It is, however, a reasonable insurance precaution.

"The above brief remarks on the treatment of rattlesnake bite do not more than skim the surface. It must be remembered that most of the experience in this country has been in the treatment of cases of C. cinereous bite and that of closely allied species. Rattlesnake venom is an exceedingly complex protein poison, having a variety of effects, neurotoxic, hemolytic, cytolytic, antibactericidal, etc. These effects probably differ considerably in the several species. It is well known that the venom of C. durissus differs extensively in its effects from that of C. cinereous and some of our more common nearctic species. We may well expect that future research will show that others of our North American rattlers have quite different effects from C. cinereous. This, in turn, may influence the development of antivenins and otherwise profoundly change the present recognized methods of treatment. Polyvalent antivenins cannot be made as effective as those to counteract the bite of specific snakes. Probably this is one of the reasons why Brazilian anticrotalus serum has been so successful; as there is but one species of rattlesnake in that country the antivenin is specific. In our country the situation is quite different. I anticipate that the future will see the venoms of our rattlers grouped in classes, with an antivenin for each class, although this could not be a successful commercial venture. In extensive areas of the country, where only one or two species of rattlers occur, only a single class would be required."

[1] The rubber-bulb type is probably to be preferred, since it will continue its action without an operator.

[2] The directions accompanying the Dudley First-Aid Kit are particularly complete with respect to the procedure of the suction treatment, both in the field and hospital.

Democracy, being a state of society as well as a form of government, aims to secure the well-being of the whole people. Often interrupted, but too good to be long neglected, it has been tried in Greece, Rome, France, England, America, and a few other lands. Problems arose. Some were solved. One, however, as yet unsolved, will be long in the deliberative councils of the people, namely, the drift toward mediocrity. Concerning it, Dr. Eugene W. Hilgard once said: "You will see a mediocrity in this country and throughout the western world, which is the price of lifting the masses. Since that upward course is theirs by right, it must be pleasantly borne. The leaven will appear to be lost. In reality, it never can be. We cannot fail."

TWENTY-FIVE YEARS AGO†

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. X, No. 9, September, 1912

From Some Editorial Notes:

Failure of the Insurance Bill.—What is known in England as the insurance bill, a measure providing for the insurance of all wage-earners of a certain class and for their medical attendance in case of injury, etc., has met with a distinct setback. It undertook to legislate the amount of compensation that should be paid to the physician for his services. It raised a storm of protest from the members of the British Medical Association who considered that the compensation fixed by the bill was totally inadequate. It certainly is "contract practice" by wholesale, and the compensation for that sort of practice is usually not large. Something over 27,000 physicians of Great Britain have agreed to refuse the compensation offered in the act and to do no work whatever for the government under it. . . .

* * *

Why This Invasion?—Why do so many physicians want to come to California? A year or two ago, when the matter was looked into, it was found that there was one doctor to about every four hundred of population; and several hundred doctors have come in since then. For the August, 1912, examination of the State Board of Medical Examiners, 202 applications had been received up to the time when the books close under the law, two weeks before the examination. Of these 194 had filed satisfactory credentials and eight were pending investigation at the time of writing; we may safely say that at least two hundred will take the August examination. If the average number pass, we will have 150 or more newly licensed physicians in an already over-supplied State. Why is it? . . .

* * *

Careless Critics.—A careless and ill-considered word of criticism about some other physician's work may be as successfully the cause of a suit for alleged malpractice as malicious comment. Too many physicians unfortunately are in the habit of looking somewhat patronizingly upon the work of their fellows and when this attitude finds expression in words, the impression made is distinctly unfavorable to the other fellow. Undoubtedly, in very many instances such implied reflections upon another's work are thoughtless and careless; but the result is as bad as though they had been deliberate. The exciting cause of more than two-thirds of all suits for alleged malpractice is to be found in the comment, malicious or careless, of some physician upon some other physician's work. As a rule the critic is not in possession of all the facts (one gets mighty few *facts* from a patient!), and when a suit is brought and he learns them, he quite frequently suffers no small discomfort and embarrassment. . . .

* * *

Platforms and Health.—Public health legislation by the Federal Government was the subject of much discussion at both the Republican and the Democratic conventions. Our dearly beloved Senator Works journeyed to Chicago with a plank in his pocket which he wanted inserted in the Republican platform; but it never came out of his pocket. . . .

* * *

More Names.—The *Annals of Surgery* for July, 1912 comes out as the "American Surgical Association Number." It contains articles by such men as Coley of New York; Stillman, of San Francisco; Charles Mayo, of Rochester; Willy Meyer, of New York. It also contains advertisements of Fellow's hypophosphites, Glycothymolin, glycerin tonic, antiphlogistin, bovinine, salhepatica, and pasadyne. The *Annals* is published by the J. B. Lippincott Co. They

(Continued in Front Advertising Section, Page 20)

† This column strives to mirror the work and aims of colleagues who bore the brunt of Association work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By Charles B. Pinkham, M.D.
Secretary-Treasurer

News

The statement, oft-repeated, made by proponents of naturopathic legislation, and often heard in legislative committee meetings, was published in the Los Gatos *Mail News*, June 3, 1937, in a letter purportedly written by Louis LaVine, D.C. of Los Gatos, who stated: "The Federal Government has recognized the value of naturopathic methods by adopting and standardizing them in veterans' hospitals and commissioning naturopathic physicians in the regular army." To this statement E. D. Kilbourne, M.D., former Commissioned Officer, Medical Corps, Regular Army, and now a resident of Los Gatos, took exception. In the Los Gatos *Mail News*, July 1, 1937, was printed the following letter:

"Captain E. D. Kilbourne,
Los Gatos, Calif.
My dear Captain Kilbourne:

I am instructed by the Surgeon-General to inform you, in reply to your letter of June 3rd, that only graduates of Class A medical schools, as listed by the American Medical Association, are eligible for commission in the medical corps of the army. I am informed by the Veterans Administration that only physicians with the same qualifications are employed for the care of veterans.

I suggest that you write to the American Medical Association if you wish additional information concerning naturopaths.

Thanks for sending us the newspaper clipping, which we herewith return.

Very truly yours,

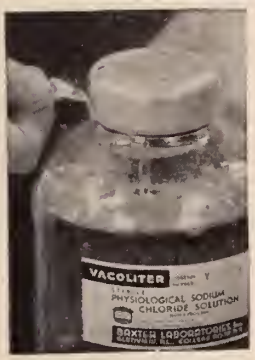
W. L. Sheep,
Colonel, Medical Corps Assistant."

"Facing one to ten years in San Quentin, Dr. Claude C. Long was found guilty of manslaughter today in the abortion death last May of Mrs. Genevieve Arganbright. Mrs. Isabelle Long, his wife, and Mrs. Ann Fisher, his office nurse, were acquitted. . . . Judge Sylvain J. Lazarus will pronounce sentence on Wednesday, at which time Doctor Long's attorneys announce they will move for a new trial. . . . Assistant District Attorney John J. McMahon, however, said: 'The case was overproved, if anything. The verdict will stand. It is very just and should serve as notice to other persons in that profession.' Police and the court, meanwhile, pressed the probe of the 'behind the scenes' maneuvering in the case, hearing Percy Arganbright, bartender and husband of the victim, state that he had been told by a 'Mr. Stillman' that 'money was no object' to those assertedly seeking to halt the prosecution of Doctor Long and his associates." (San Francisco *Call-Bulletin*, August 7, 1937.)

"Following several months of investigation by insurance companies, the Los Angeles Bar Association, State Medical Association, and deputy sheriffs, the District Attorney's office yesterday exposed the existence of a $5,000,000 faked accident insurance fraud scheme, involving at least four Los Angeles attorneys and ten physicians. Deputy District Attorney George Stahlman declared he is ready to go before the grand jury next week to demand indictments against those suspected of participating. Hundreds of thousands of dollars are involved in faked accident claims filed against insurance companies in Los Angeles each year, Stahlman said. Suits were found to have been arranged in each case by the same group of attorneys and physicians, he said. . . ." (Los Angeles *Daily News*, July 23, 1937.)

(Continued in Front Advertising Section, Page 24)

† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.



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BOARD OF MEDICAL EXAMINERS

(Continued from Front Advertising Section, Page 30)

ment when the finds were made, said that from those cases that had been recovered, only the narcotics and a hypodermic needle for injecting it had been taken before the bags were thrown away. The narcotics and needle were worth not more than $2, while the bags and equipment lost have been worth from $75 to $150. The officers lay the thefts to some 'hophead' who has not been able to purchase 'dope,' or found stealing the bags an easier way than buying."

Federal Courts Fine Seventeen Shippers of Medicinals.—Terminations of criminal actions under the Federal Food and Drugs Act reported during the past month, included seventeen against medicine manufacturers who shipped misbranded and adulterated preparations in interstate commerce. Fines totaling $2,175 were paid, and a total of $2,160 suspended or remitted to the defendants.

The largest fine was paid by Fred W. Clements and the International Laboratories, Inc., Rochester, New York, shippers of "Moone's Emerald Oil." Clements, president of the firm, had pleaded not guilty to the Government's charge that the oil, a green-colored mixture of mineral oil with camphor, wintergreen, and carbolic acid, was neither germicidal nor a treatment for the disease conditions named in its labeling. The jury returned a verdict of guilty, and the court imposed fines totaling $2,000, of which $1,000 was suspended, and the balance paid.

"Moone's Emerald Oil," shipments of which were seized on request of the Federal Food and Drug Administration in June, 1935, was offered as a treatment for varicose veins, varicose ulcers, toe itch, acne, pimples, and as effective in promoting the formation of new healthy skin, in the treatment of chronic and incurable diseases, and in the treatment of lameness and stiff joints, muscle joint and nerve conditions. The Goverment's allegation that the product was worthless in those conditions was upheld by the jury finding of guilt.

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Other "Medicine" Manufacturers Fined

Other medicine cases terminated last month involved the Chemical Products Company, Ellsworth, Minnesota, shippers of "Sixty Minute Worm Expeller," a mixture of ground acreca nut and charcoal, falsely offered as a worm expeller for dogs, cats, and foxes; fine $10, suspended by the court.

Ampere Products Company, West Orange, New Jersey, and Raoul H. Schille, general manager of the company, "Apco No. 35 Pyorrhea Specific," having no value in the treatment of pyorrhea, and not of the bactericidal strength claimed for it, paid fines totaling $25, and additional fines of $300 suspended by the court.

Vitamin Products Research Foundation, Chicago, "GEBA" tablets containing ground wheat material with sugars, compounds of calcium and magnesium, phosphates and carbonates, labeled with false claims of vitamin content and benefit in the treatment of vitamin-deficiency diseases; fine, $25 and costs.

G. Sallusto Company, Brooklyn, New York, "Antiseptol," a mixture of boric acid, zinc sulfate and menthol, labeled in Italian as an antiseptic and as a treatment for women's ailments; fine, $50.

Worthless Tablets

Albert T. Peters and Paul S. Casey, trading as Vitamineral Products Company, Peoria, Illinois, "Astringent Tablets," worthless tablets consisting of 89 per cent table salt with a green dye, offered as an intestinal antiseptic for the treatment of coccidiosis, diarrhea, dysentery, fowl typhoid, fowl cholera and other intestinal diseases of poultry; fine, $50 and costs.

Interstate Medical Company, Kingsley, Iowa, "Tonic Wormite," consisting of Epsom salt, ground wheat, areca nut, ground linseed, and small amounts of American wormseed, soda, salt and charcoal, for worms in pigs and poultry, fine $100 and costs; and H. C. Roberts Company, Sioux City, Iowa, "Essential Food Minerals," consisting of 97.1 per cent lactose and small proportions of salts and plant material, falsely represented as a source of vitamins and as a treatment for vitamin deficiency disease, fine $100 and costs.

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SILICA	93.0 parts per million
CHLORINE	38.3 parts per million
SULPHATE	16.1 parts per million
NITRATE	0 parts per million
PHOSPHATE	.7 parts per million
CARBONATE	1551.4 parts per million
TOTAL	2591.4 parts per million

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Drugs Not Standard

The remaining drug cases involved shippers of pharmaceuticals that departed from the established standards. Defendants were Bleecker-Foster, Inc., St. Paul, Minnesota, shippers of iodin ointment, fine $5; Economy Laboratories, Inc., Peoria, Illinois, tincture nux vomica, fine $50 and costs.

Bernard Ulman, trading as National Pharmaceutical Manufacturing Company, Baltimore, Maryland, elixir terpin hydrate and codein, fine $50 and costs; Burrough Bros. Mfg. Co., Baltimore, Maryland, tincture cinchona compound, and powdered extract nux vomica, fine $50 and costs; Three Star Magnesia, Inc., Newark, New Jersey, citrate of magnesia, fined $100 of which $50 was remitted

(Continued on Next Page)

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(Continued from Preceding Page)

by the court; American Oxygen Service Corporation, Harrison, New Jersey, nitrous oxid, fine $100.

Eastern Pharmacal Company, New York, N. Y., elixir Aspiral, fined $500, of which $400 was remitted by the court; Purepac Corporation, New York, N. Y., brown mixture lozenges, Burrows solution, ephedrin compound inhalant, and cod-liver oil, total fines of $220; and Sutliffe and Case Company, Peoria, Illinois, nitroglycerin tablets, fine $250 and costs.

Patent Medicines

Drug seizures last month involved 195 packages of unsterile gauze bandages, 70 boxes of unsterile surgical sutures, 105 cans of impure anesthetic ether, and these patent medicines:

"Bering Ear Oil," a fish oil with wintergreen, for defective hearing, buzzy, noisy, painful and aching ears; "Bevill's Lotion," a hydroalcoholic solution of salicylic acid and wintergreen, for eczema, ringworm, acne, pimples, itch, sores and skin disturbances; "Butler's Cod Liver Oil Ointment," a mixture of petrolatum and fish oil, for burns, wounds, cuts, ulcers, blood poisoning, acne, and fistula.

"Elder Flower Eye Lotion," a solution of boric acid and salt with a little alcohol, plant extracts including camphor, peppermint, cherry laurel and elder flowers, for affections of the eyes and eyelids; "Elixir Tussinol," a water solution of gold bromid, for whooping cough and other spasmodic coughs.

"Helm's Jen—A Rub," wintergreen and menthol in petrolatum, for colds, sinus trouble, open sores, stiff joints, flu, pneumonia, neuritis, sore throat, sprained back muscles and rheumatic pains; "Dr. Isaac's Big Jim," potassium iodid, alcohol, water and plant extracts, for impure blood, boils, sores, eruptions, and rheumatism; "Dr. Isaac's Big Jim Healing Liquid," 6 per cent mercuric chlorid in water, for sores.

"Lions Stock Remedy," powdered plant material, including wormseed, with sodium, iron and magnesium sulfates and bicarbonates, for worms in horses, cattle, sheep, hogs, and poultry, distemper in horses, and roup, gapes and cholera in poultry; "Malto-De," glucose, cane sugar, cocoa, malt, dried milk, each gram containing one-half U. S. P. unit of vitamin D, represented as containing far more calcium, phosphorus and vitamin D than actually present, for decayed teeth, to obtain complete growth, strong, well-formed bones, sound, hard teeth, to maintain the perfect skeletal structure and mineral balance, for rickets and other vitamin D deficiency diseases, scurvy, celiac and sprue diseases.

"Migro-Powder," containing 4.3 grains acetanilid per powder (the labeling declared six grains per powder), with sodium bicarbonate and lactose, for migraine, neuralgia, and grippe; "Page's Inhalers," cigarettes containing plant material, chiefly stramonium leaves, for asthma, hay fever, catarrh, bronchitis, and hoarseness; "Phillips Croup and Pneumonia Salve," eucalyptus and pine oils in petrolatum, for croup, pneumonia, irritation of the nasal passages, and chest colds.

"Ru-Ma," a water solution of iodids, salicylates, acetates, and a plant laxative, for rheumatoid conditions, neuritis, neuralgia, gouty diathesis, aches, pains, stiffness and soreness of muscles and joints.

"Sal-I-Can," salicylic acid, alcohol, acetone and water, for grounditch, ringworm, infected wounds, bunions, tetter, tumors, eczema, old sores, nail wounds, muck poison, barbers itch, leaches in horses and mules, and rheumatism; and "Vapor Balm" (the cartons of which were labeled "Anti-Pain"), petrolatum with menthol and wintergreen, for chest colds, head colds, local congestion and irritation, rheumatism, neuralgia, bruises, headaches, skin irritations, muscular soreness, and night coughs.

Rare Paper at University of California Medical School Ends Wide Search.—A nation-wide search for "the last word" on the causes of lesions of the shoulder, which take a tremendous industrial toll yearly, has ended in the library of the University of California Medical School here. Oddly enough this "last word" is more than

(Continued on Page 38)

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Rates, Information and Booklet on Request

(Continued from Page 36)

one hundred years old. It was disinterred from the mass of medical literature by Doctors K. O. Haldeman and Ralph Soto-Hall of the Medical School staff, and incorporated by them into an outstanding article entitled "Injuries to Muscles and Tendons," appearing in a recent issue of the *Journal of Bone and Joint Surgery of Boston.*

The article appeared after the American College of Surgeons had completed an attempt to obtain the fullest possible information on the subject, for inclusion in a book, "The Shoulder," being written by Dr. E. A. Codman, noted surgeon of Boston. Doctor Codman had, likewise, made an exhaustive search of references on his own account. Subsequently the article by Doctors Haldeman and Soto-Hall appeared, quoting a paper written by one J. S. Smith, British anatomist, in 1834, and published in the *British Medical Gazette* in that year.

This convincing article by the two San Francisco men immediately attracted Doctor Codman's attention, and he sought the ancient Smith paper from them. They in turn had obtained the Smith treatise from one of the rare volumes in the University Medical School library. In his own article, appearing in the Boston journal, Doctor Codman acknowledged the fine research feat of the San Francisco doctors, and admitted that Smith's keen, but long-submerged analysis of shoulder lesions, proved many later findings and tended to disprove others.

The Smith paper, which Doctor Codman used in full in his article, contains some revealing statements which should interest physicians and laymen alike. For instance, he is referred to in the ancient document as "Mr. Smith," and in his paper he mentions a human body brought to his dissecting room "under the old system of violation of the grave."

Remarking on the achievement by the two University staff men, Dr. Langley Porter, dean of the Medical School, stated that, while priceless medical manuscripts and books repose in the medical library, the University is without funds to either properly house them or properly protect them against fire.

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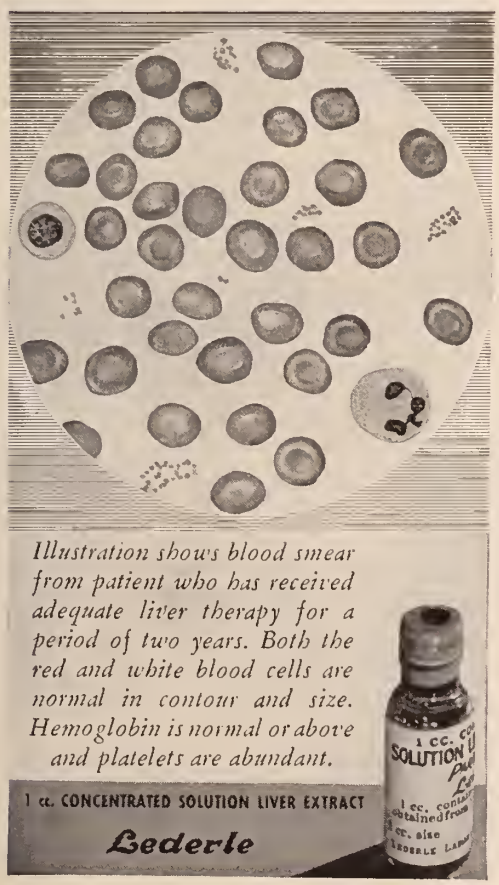

Illustration shows blood smear from patient who has received adequate liver therapy for a period of two years. Both the red and white blood cells are normal in contour and size. Hemoglobin is normal or above and platelets are abundant.

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The Effect of 'Benzedrine Sulfate' on the Rat.—Ehrich and Krumbhaar (Ann. Int. Med., 10:1874, June, 1937) report on the functional and structural changes produced by 'Benzedrine Sulfate' (benzyl methyl carbinamine sulfate, S. K. F.) when injected into rats in varying doses over varying periods of time. The minimum lethal dose decreased with the weight (age) of the animal, varying between 35 mg./kg. for the older and 200 mg./kg. in the younger rats. This would be from 100 to 1000 times per kilo the usual therapeutic dose in man. A tolerance to repeated doses was observed. With large sublethal doses, excitement, mydriasis, erythrocytosis, leukocytosis, and retardation of growth were effects commonly produced. The greatest nontoxic dose (*i. e.*, that which failed to produce transient variations) appeared to be about 10 to 50 times per kilo the usual therapeutic dose in man. Animals which died following high, toxic doses showed various changes in the lungs, spleen, liver, and kidneys. But repeated sublethal doses failed to produce any detectable lesions in rats. It was concluded, therefore, that there should be a considerable margin of safety in the proper therapeutic use of 'Benzedrine Sulfate.'

The First Supplement to the United States Pharmacopeia, XI.—The Pharmacopeial Convention of 1930 approved the following resolution which had been passed, in substantially the same form, by many preceding United States Pharmacopeia conventions:

"Supplements.—It is recommended that the Committee of Revision be authorized to prepare supplements to the

(Continued on Next Page)

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(Continued from Preceding Page)

Pharmacopeia, or lists of admissions or changes at any time they may deem such action desirable." (U. S. P. XI, page 66.)

Under this authorization the United States Pharmacopeia Committee of Revision and Board of Trustees have prepared and published the First Supplement to the United States Pharmacopeia, XI.

This First Supplement has just been released and will become official on December 1, 1937. It is a booklet of about one hundred pages in a substantial binding, and may be obtained from the Mack Printing Company, Easton, Pennsylvania, from your wholesale druggist, or from any other distributor of the United States Pharmacopeia, at $1 per copy, postpaid. In this Supplement, all of the texts revised to June 1, 1937, are reprinted in full so that there can be no misunderstanding of the authorized changes.

This Supplement was prepared under the same careful procedure followed for the original text of the Pharmacopeia. Each proposed change was carefully investigated by the appropriate subcommittee and submitted for the consideration of the Revision Committee. The tentative text was then given wide distribution to solicit criticisms and suggestions. A hearing, conducted by members of the Executive Committee, was later arranged and announced, and anyone interested was invited to be present. Following the hearing the members of the Executive Committee held a conference with the officials of the Food and Drug Administration at Washington and then decided upon the text, which was then submitted in full to the members of the Committee on Revision for discussion and approval. Finally the Board of Trustees decided the date of issue for the Supplement, also the date when it is to become officially a part of the United States Pharmacopeia, XI, and the price for which it is to be sold.

American pharmacy may justly be proud of the part it has played for almost a century in coöperation with medicine in the decennial revisions of the United States Pharmacopeia. The issuance of the First Supplement to the Eleventh Revision inaugurates an advanced program. This makes possible the prompt revision of tests or assays whenever it is found necessary, and even the recognition of added therapeutically important substances, if new conditions make such action desirable. This plan will make the Pharmacopeia more responsive to progress, more serviceable as a technical guide to the health professions, and more dependable as an authority for drugs and medicines under the federal and state Pure Food and Drugs Act.

The fullest support should, therefore, be accorded to this new and forward-looking policy by all who are interested in the Pharmacopeia. Pharmacists and all other users of the United States Pharmacopeia should promptly supply themselves with copies of the First Supplement to the Eleventh Revision.

To believe with certainty we must begin by doubting.—Stanislaus.

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Oxygen Deficiency Offered as Explanation for Aviation Accidents. — A dramatic, though still tentative, explanation for the long succession of "pilot errors" preceding the past year's fatal airplane accidents is advanced by the editors of *Fortune,* in the August issue.

The pilots may have needed oxygen, *Fortune* declares, citing newly collated medical evidence indicating that even at normal altitudes oxygen deficiency may so vitiate the judgment of a tired pilot that he will make unpredictable decisions in the air.

Research to determine at what altitude anoxemia should be accounted contributory to "pilot error" is urged by the editors of *Fortune.* Anoxemia, sometimes called mountain sickness, the article points out, is familiar to all who have frequented high altitudes. Its characteristic symptoms— loss of neuromuscular control, retarded mental processes, lack of self-criticism and a general releasing of inhibitions— have a similarity to those of alcoholic intoxication. They may persist for hours after returning to normal atmospheric pressures. Moreover, anoxemia affects the brain. Various tests at high levels have shown slower reactions than normal, and a higher percentage of errors. Anoxemia also affects the muscles of the eye. Medical observers have reported impairment of otherwise normal vision at altitudes between 10,000 and 15,000 feet. Moreover, a general diminution of vision takes place which may be manifested by the general darkening of the visual field.

All these symptoms may be the result of flying at much lower altitudes than is popularly supposed.

There is evidence that oxygen deficiency may be concerned in aeroneurosis, the general symptoms of which are gastric disorders, nervous irritability, and increased motor activity, with subjective complaints of insomnia, apprehension, and mental fatigue. It is recognized officially by the Department of Commerce that the commercial pilot is under great nervous strain during many of his hours in the air.

Experiments in oxygen deficiency by Dr. Ross A. McFarland and Dr. Alvan L. Barach of Columbia on normal persons and on psychoneurotics showed that the

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inability of the nervous individual to handle oxygen-want was in clear contrast to that of the normal person. Further experiments showed that the normal person, when exposed to undue fatigue, revealed a decreasing capacity to tolerate oxygen-want. Some of the material by Doctor Barach has been presented in a recent issue of the *Journal of the American Medical Association.*

From all this the article deduces that if a pilot were already in a nervous state, an exposure of several hours to an altitude of 10,000 or 12,000 feet might markedly affect his judgment and coördination. Doctor Barach even advances the hypothesis that repeated exposures to oxygen-want at high altitudes may be an important factor in the development of aeroneurosis itself. There is, it must be added, objection to this point of view, by several investigators, notably Major R. W. Schroeder, formerly of the Department of Commerce and now of United Airlines.

Aviation has heretofore been aware that the normal individual faints for lack of oxygen somewhere between 18,000 and 24,000 feet, and the Department of Commerce has ruled that commercial planes may not in any event fly above 18,000 feet without approved oxygen equipment. But anything under 15,000 the Department considers safe. In this connection it is interesting to note that two of the major commercial airlines have equipped their ships with oxygen apparatus and have instructed their pilots to use it at any altitude over 12,000 feet. At a stroke, these regulations cut 6,000 feet from the present Department of Commerce "ceiling."

Geriatrics.—Geriatrics has to do with the scientific study of the diseases of the aged, and it would now seem that most of the diseases formerly attributed to age itself had their origin in days gone by and that vigor, working capacity, and age are properly not functions of time but physical states influenced by what happens in the course

(Continued on Next Page)

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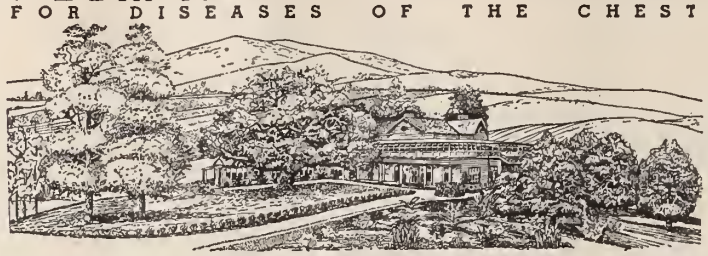

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(Continued from Preceding Page)

of time, and that, occasionally, the excesses of youth become drafts upon old age, payable with interest thirty years or so after date.

While more or less deterioration naturally comes with the years, it normally is a slowly progressive condition, a wearing-out process that all living things must meet, but the rapidly increasing number of deaths beyond fifty years of age due to cerebral hemorrhage and heart diseases are, of course, not normal deaths.

Many thousands of persons, who in other days would have died of typhoid fever, diphtheria and other diseases in youth or early manhood or womanhood, are now reaching an age when the walls of blood vessels begin naturally to lose their elasticity, and hardened vessel-walls mean extra work for a heart beginning, too, to show deterioration.

While there is decreased incidence of certain infections and rheumatic-inducing conditions that might cause damage to heart and vessel walls, few persons have reached the age of fifty without having had at least one of them.

There may be an almost imperceptible heart injury following a childhood attack that later may become a positive menace to life; scarlet fever has, in the past, accounted for about 12 per cent of these early injuries; chorea, about 15 per cent; diphtheria, 16 per cent; rheumatism, 44 per cent; and tonsillitis, 66 per cent.

So, too, the high pressure conditions of modern life must be taken into consideration; the nerve strain, the anxieties and worries of many over the maintenance of home and family and, on the other hand, the opportunities of many others for overindulgence and high living with no accompaniment of the muscular exercise so necessary to all animal life.

If any organ of the body is justified in showing the wear and tear of the years, the heart is that organ. At seventy-two beats to the minute, with rest periods of a scant half-second duration, the normal heart labors on twenty-four hours a day. Its usual work for these twenty-four hours amounts to almost 150,000 foot pounds, a task equivalent to raising a one-ton weight 75 feet. Anger, joy, fright, a little fever, a little run upstairs, or any of the many things that accelerate the pulse, add to the heart's daily task.

Usually a defective heart only shows its injury indirectly; it may be badly damaged and still continue its work; not so well, perhaps, but with no very alarming distress until, suddenly, its work is done.

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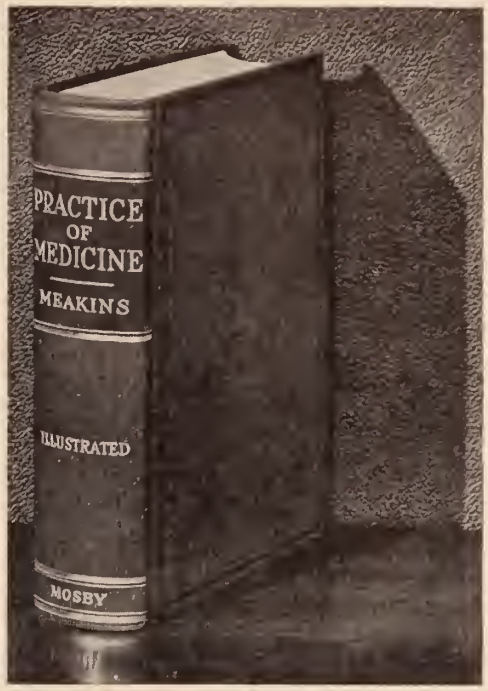

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By JONATHAN CAMPBELL MEAKINS, M.D., LL.D.

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Sacramento—State Office Building, Tenth and L streets. CApital 2800.
Los Angeles—State Office Building, 217 West First Street. MAdison 1281.
President, Howard Morrow, San Francisco.
Director, Walter M. Dickie, State Building, San Francisco.

California Northern District Medical Society

President—Percy B. Gallegos, 242 North Sutter Street, Stockton.
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Board of Medical Examiners of the State of California

San Francisco, Rm. 512, 450 McAllister St.
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Sacramento, 420 State Office Building.
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Secretary, C. B. Pinkham, Room 512, 450 McAllister Street, San Francisco.

Southern California Medical Association

President, Franklin R. Nuzum, Cottage Hospital, Santa Barbara.
Secretary, Robert W. Langley, 1002 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

The Public Health League of California

Executive Secretary, Ben H. Read. San Francisco office, 450 Sutter Street. Los Angeles office, Room 563, 1151 South Broadway.

Better Health Foundation

President, Reginald Knight Smith,* 490 Post Street, San Francisco.
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A SERVICE AGENCY—FOR READERS

The Journal of the California State Medical Association and the Coöperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital, or we will refer your request to the proper department of the A. M. A. for reply.

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Perhaps you want a certain kind of instrument which is not advertised in California and Western Medicine, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This A. M. A. Service Bureau will give you the information. Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to write direct to the Coöperative Medical Advertising Bureau, 535 N. Dearborn Street, Chicago, Illinois. California and Western Medicine and the A. M. A. Service Bureau desire to serve *you*.

Calcium Ortho-Iodoxybenzoate in the Treatment of Arthritis.—Cohen (Clin. Med. and Surg., 44: 341, August, 1937) reports on a series of 125 cases of classic atrophic arthritis where calcium ortho-iodoxybenzoate was the only drug therapy used. With those patients receiving therapy over a considerable period, 5 per cent were regarded as cured; 43 per cent very much improved; and 22 per cent somewhat improved. This represents a total of 70 per cent who received definite benefit from the drug. The dose employed was usually from two to four times that heretofore recommended and varied between 3 and 6 grams daily. While this increase resulted in a greater incidence of intolerance, it is advocated on the basis of greater therapeutic efficiency. Neither age nor sex appeared to be of significance as regards the efficacy of calcium ortho-iodoxybenzoate (Oxo-ate "B") and no particular type of atrophic arthritis was benefited more than another. Complete hematological examinations and laboratory tests indicated that the drug has no effect on the red or white blood cells, heart or kidneys even when taken over long periods of time. It is concluded, therefore, that calcium ortho-iodoxybenzoate may be safely used in large doses and is a valuable adjunct in the treatment of atrophic arthritis.

Physical Examination at Schools in Japan. — The general tendency, seen in the physical examination for conscription, that young men are becoming constitutionally weaker every year, has attracted much attention. At the Tokyo Imperial University it has been announced that the physical examination of the students henceforth will be done differently from that of former days. What it needs is not the recording of physical development, but guidance of students to better health. Students were formerly examined with the stethoscope only, but now they will also, if necessary, be roentgenographed.

The final analysis of the social intelligence of a people will rest on their health program.—Gordon Heyd, M.D., Past President, American Medical Association.

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The Institutions here listed have announcements in this issue of CALIFORNIA AND WESTERN MEDICINE. For Index, see advertising page 8.

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Optometry Practice Acts: Corporate Practice of Optometry in Missouri.—A corporation operated a number of department stores in Missouri and leased to an optical company space for operation of optical departments in such stores. The company agreed to place graduate optometrists in charge of such optical departments, who were to be subject to all the rules and regulations of the corporation. Receipts from the operation of such optical departments were payable to the corporation, which after deducting 25 per cent of such receipts returned them to the optical company. The optical company furnished all the equipment, supplies and merchandise necessary for the conduct of the optical business, but all the advertising of such departments was in the name of the corporation. The attorney-general of Missouri brought *quo warranto* proceedings, alleging that the corporation and the company were engaged in the practice of optometry without a license. The Supreme Court of Missouri, however, held that the defendants were not engaged unlawfully in the practice of optometry within the meaning of the Optometry Practice Act and dismissed the proceedings. (*State ex inf. McKittrick* vs. *Gate City Optical Co.* (Mo.), 97 S. W. (2d) 89.

Hospital Sheeting.—A new type of hospital sheeting made from "Cavalite" rubber-coated silk has been developed in the laboratories of the du Pont Company of Wilmington, Delaware.

Extremely light in weight and of smooth texture, it has been designed to fit snugly to the mattress, and, when covered with the bed sheet, its presence cannot be felt by the patient.

A series of tests, reproducing every condition of rigorous hospital usage, was arranged to gauge the properties of the material. These included baking for thirty-five days in a Geer oven, a twenty-four-hour period in which five sterilization preparations were applied, a four-hour exposure to steam, twenty-four fours of alcohol immersion, and twenty-four hours of ether, perspiration and urine testing. The sheeting showed no change throughout the tests.

The new "Cavalite" sheeting is completely waterproof.

"The Birth of a Baby." How the Film Will Be Shown to the Public.—Forty-five hundred physicians and their wives attended the preview, at the Atlantic City Session of the American Medical Association, of the new talking picture film of the American Committee on Maternal Welfare.

The film was received with spontaneous enthusiasm and considerable praise of the acting, the photography, and of the great teaching work done by the committee. Complete absence of advertising was noteworthy.

The public exhibition of this film will be as ethical as was its production. It will first be shown to each state medical society, or, in the larger cities, to the city or county medical society. Upon its official approval, the film will be exhibited in every important community in that state or city. Local physicians and their families will be given a special free showing at one of the local movie houses, after which the film will be made available to the public, with whatever age restrictions, if any, may be recommended by the local medical society.

The film advertises no thing, person, or firm. It has only one objective; To educate the public to the need for maternal care and the value of the physician's services. Reaching millions of persons in the theatre, the film may well prove to be the most powerful single influence for effective public education that has yet been made available to the medical profession.

Every detail of the public exhibition of the film is carefully controlled: The exhibitor cannot add any sex or advertising picture in the same program with "The Birth of a Baby." Only approved lobby photographs, signs, newspaper stories, etc., may be used.

In other words, every precaution is being taken to the end that this extraordinary picture may remain dignified and forceful in its high purpose of educating mothers and prospective mothers on the importance of maternal care.

The profession is indebted to the untiring efforts of the members of the sub-committee of the American Committee on Maternal Welfare and also to Mead Johnson & Company whose generous financial aid and intelligent cooperation has made this important picture possible.

Many physicians feel that every girl over twelve and every boy over fourteen should see the new talkie "The Birth of a Baby," which is being presented by the American Committee on Maternal Welfare at regular movie houses.

Most parents are either unable or unwilling to instruct their children in regard to menstruation, fertilization, pregnancy, and other natural phenomena. The result is that the child grows up in ignorance of these important matters, or what is worse, gets its "education" in the gutters.

If physicians will suggest it, parents will welcome the opportunity to take their children to witness this epoch-making film, "The Birth of a Baby," because it accurately, understandingly and without salaciousness, unfolds the true facts that these parents do not or cannot now tell their own children.

Men influence the conduct of others chiefly through personal association and intercourse. There is such a preponderance of good in human nature that association with men ordinarily begets a liking for them. As men come to know each other, each comes to receive from the others the respect and confidence to which he is entitled; his character and his opinions insensibly acquire their due weight and influence. It is not the stranger who says, "Go there," or "Do that," who is obeyed, but it is the old acquaintance who says, "Come with me," or "Let us do thus and so," who is followed.—Elihu Root.

Everyone should order his daily life so as to have some leisure, for it is during such parts of the day that many important decisions are made. Then a man has time to think quietly and to do some of the things, like reading, that make for his mental growth. If work tends to get him into a rut, leisure lifts him out again. If work is not carrying him to a proper goal, it is often during leisure that he discovers the fact and directs his course anew.

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BOOK REVIEWS

Books received for review are placed in the Library of the California Medical Association, in its central office at San Francisco. Book reviews are written by the Association Secretary.

BOOKS RECEIVED

Russian Medicine. By W. Horsley Gantt, M. D., Johns Hopkins University School of Medicine; formerly Chief of Medical Division, American Relief Administration, Leningrad Unit (1922-23); Collaborator in Pavlov's Laboratories (1925-29). Cloth. Pp. 214, with twelve illustrations. Price, $2.50. New York: Paul B. Hoeber, Inc., 1937.

Injuries and Diseases of the Hip. Surgery and Conservative Treatment. By Fred H. Albee, M. D., LL. D., F. A. C. S., Past President, American Orthopedic Association; Chairman, Rehabilitation Commission of the State of New Jersey. Assisted by Robert L. Preston, M. D., Associate in Orthopedic Surgery, Columbia University. Cloth. Pp. 298, with one hundred illustrations, including three in color. Price, $5.50. New York: Paul B. Hoeber, Inc., 1937.

Obstetrics for Nurses. By Joseph B. DeLee, A. M., M. D., Professor of Obstetrics and Gynecology, Emeritus, University of Chicago: Consultant in Obstetrics, Chicago Lying-in Hospital and Dispensary; Consultant in Obstetrics, Chicago Maternity Center, and Mabel C. Carmon, R. N., Chief Supervisor and Instructor in Birthrooms, Chicago Lying-in Hospital and Dispensary. Eleventh edition, revised and reset. Cloth. Pp. 659, with illustrations. Price, $3 net. Philadelphia: W. B. Saunders Company, 1937.

The Human Body. By Logan Clendening, M. D. Illustrations by W. C. Shepard and Dale Beronius and from photographs. Third edition: Corrected, enlarged, and rewritten. Cloth. Pp. 443. Price, $3.75. New York: Alfred A. Knopf, 1937.

Emotional Adjustment in Marriage. By Le Mon Clark, M. S., M. D., Assistant in Obstetrics and Gynecology, University of Illinois College of Medicine. Cloth. Pp. 261. Price, $3. St. Louis: The C. V. Mosby Company, 1937.

Psychiatric Nursing. By William S. Sadler, M. D., Chief Psychiatrist and Director, The Chicago Institute of Research and Diagnosis; Consulting Psychiatrist to Columbus Hospital. In collaboration with Lena K. Sadler, M. D., Associate Director, the Chicago Institute of Research and Diagnosis; Medical Director, The North Side Rest Home; Attending Physician, Columbus Hospital and the Women and Children's Hospital, and Anna B. Kellogg, R. N., Member American Nurses' Association; Chief of Nurses, The Psychiatric Clinic of the Chicago Institute of Research and Diagnosis; Instructor in Psychiatric Nursing, The North

(Continued on Page 15)

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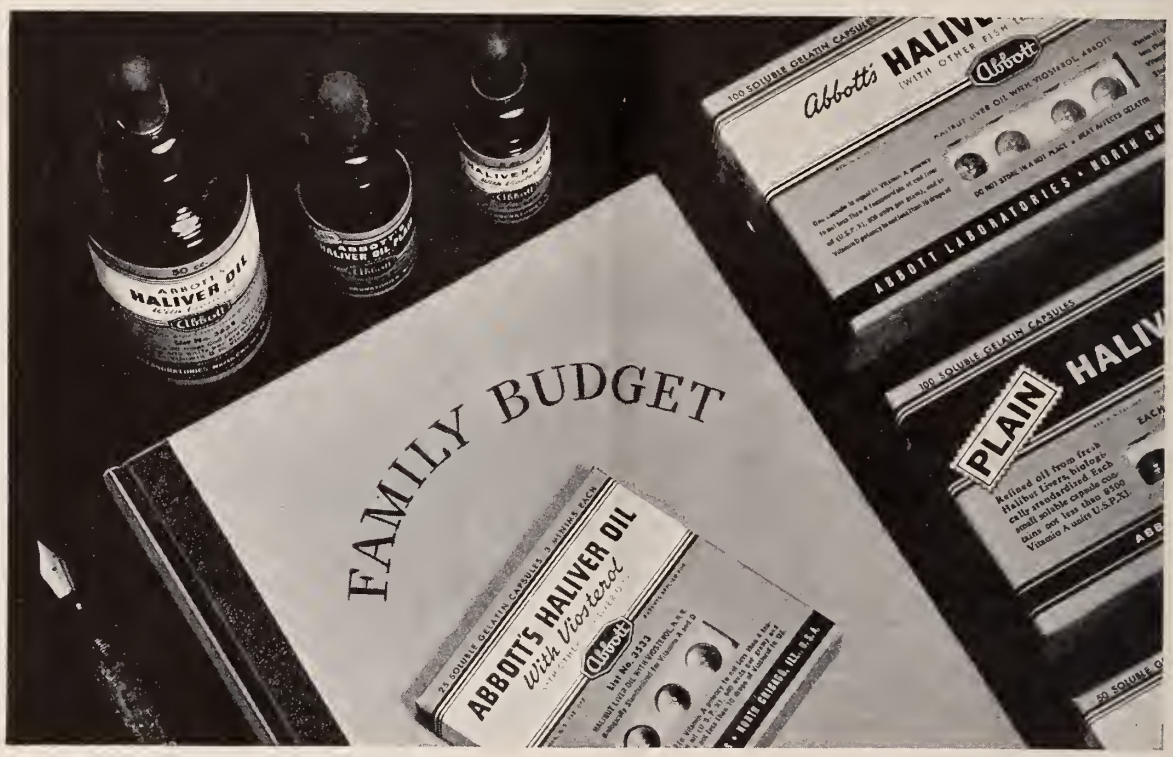

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BOOKS RECEIVED

(Continued from Page 13)

Side Rest Home. Cloth. Pp. 433. Price, $2.75. St. Louis: The C. V. Mosby Company, 1937.

Diseases of the Heart. Described for Practitioners and Students. By Sir Thomas Lewis, C. B. E., F. R. S., M. D., D. Sc., LL. D., F. R. C. P., Physician in Charge of Department of Clinical Research, University College Hospital, London; Honorary Consulting Physician to the Ministry of Pensions; Consulting Physician, City of London Hospital; Fellow of University College, London. Second edition. Cloth. Pp. 297. Price, $3.50. New York: The Macmillan Company, 1937.

Clinical Urinalysis and Its Interpretation. By Robert A. Kilduffe, A. M., M. D., F. A. S. C. P., Director of Laboratories, Atlantic City Hospital; Pathologist, Atlantic County Hospital for Tuberculous Diseases; Serologist, Atlantic County Hospital for Mental Diseases; City Bacteriologist, City of Atlantic City; Serologist, Municipal Hospital for Contagious Diseases, Atlantic City. Cloth. Pp. 428, with forty illustrations. Price, $4. Philadelphia: F. A. Davis Company, 1937.

The Traffic in Health. By Charles Solomon, M. D., Assistant Clinical Professor of Medicine, Long Island College of Medicine; Lecturer in Materia Medica, Training School for Nurses, Jewish Hospital of Brooklyn. Cloth. Pp. 393. Price, $2.75. New York: Navarre Publishing Company, Inc., 1937.

Injection Treatment of Hernia. By Carl O. Rice, M. D., F. A. C. S.; Instructor in Surgery, University of Minnesota School of Medicine; Surgeon in Charge of the Surgical Out-Patient Department of the Minneapolis General Hospital; Adjunct to the Surgical Staff of the Minneapolis General Hospital; Surgeon to Asbury Hospital, Deaconess Hospital

(Continued on Page 17)

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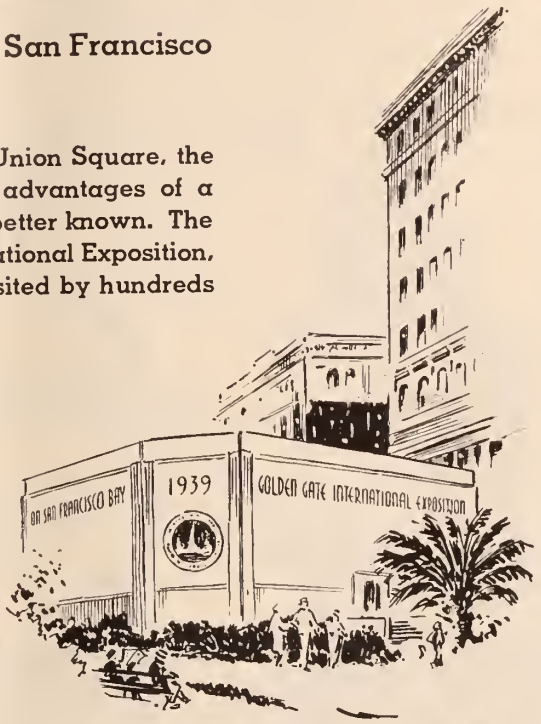

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and Swedish Hospital, Minneapolis; Member of the Minneapolis Surgical Society, American Medical Association. With the assistance and coöperation of Hamlin Mattson, M. D. Cloth. Pp. 266, with eighty-three illustrations. Price, $4.50. Philadelphia: F. A. Davis Company, 1937.

Pathology of the Central Nervous System. A Study Based Upon a Survey of Lesions Found in a Series of Fifteen Thousand Autopsies. By Cyril B. Courville, M. D., Professor of Neurology and Psychiatry, College of Medical Evangelists, Director Cajal Laboratory of Neuropathology, Los Angeles County Hospital, Los Angeles, California. Cloth. Pp. 344, illustrated with two hundred cuts of photographs and pen drawings. Price, $5.75. Mountain View, California: Pacific Press Publishing Association, 1937.

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles. By leading members of the medical profession throughout the world. Edited by Louis Hamman, M. D., Visiting Physician, Johns Hopkins Hospital, Baltimore, Md. Volume III, Forty-seventh Series, 1937. Cloth. Pp. 327, illustrated. Philadelphia: J. B. Lippincott Company, 1937.

The Rockefeller Foundation. Annual Report, 1936. Paper. Pp. 461, illustrated. New York: The Rockefeller Foundation, 1937.

Report of the Committee on Tuberculosis Among Negroes. A Five-year Study and What It Has Accomplished. Paper. Pp. 77. New York: National Tuberculosis Association, 1937.

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Clinical Endocrinology. By Samuel A. Loewenberg, M. D., F. A. C. P., Clinical Professor of Medicine, Jefferson Medical College, Philadelphia; Assistant Visiting Physician, Jefferson Hospital; Visiting Physician, Philadelphia General Hospital, Northern Liberties Hospital, and Eagleville Sanatorium for Consumptives; Consulting Physician to the Philadelphia Hospital for Contagious Diseases. Foreword by Hobart A. Reimann, M. D., Professor of Medicine and Clinical Medicine, Jefferson Medical College, Philadelphia. Cloth. Pp. 825, with 194 illustrations and thirty-seven charts and tables. Price, $8. Philadelphia: F. A. Davis Company, 1937.

The studies which have been conducted on the glands of internal secretion in recent years have resulted in the publication of so many papers that few physicians are able to follow the various phases of this important field. It was inevitable, therefore, that attempts should be made to review the subject and condense the available material into one monograph. Loewenberg's "Clinical Endocrinology" represents another such effort. It is a book of some eight hundred pages, well illustrated, and with long bibliographies appended to each chapter. It is planned in the conventional manner, but the arrangement of some of the minor sections is at times confusing. Many of the references refer to studies which as yet have not received confirmation, and there is a great tendency on the part of the author to apply results of animal experimentation directly to the human. For instance, it is certainly not proved that the anterior lobe of the hypophysis actually produces twelve hormones. Many inaccuracies are noted. It is surprising to find that pregnancy urine "has little, if any, effect upon the ovaries of immature rats," since this is the basis of the Aschheim-Zondek pregnancy test. Figure 156 is given as "hypoplasia of the endometrium," but few pathologists will fail to recognize a hyperplasia of the endometrium, while Figure 158, described as "hyperplasia of the endometrium midway between cycles," seems to show the characteristic features of an early stage of secretion. The author also believes in the old superstition that the duration of the normal menstrual cycle is twenty-eight days, and that the ovum remains viable in the fallopian tubes for three to four days or longer, that the uterus will contract under pituitrin stimulation only during the first half of the menstrual cycle, and that the anterior pituitary-like principle is effective when given orally. Some distinctions are difficult to understand, as "H. Zondek states that menorrhagia, as a rule, is connected with hormonal influences of the ovary, while metrorrhagia may be caused by disturbance of ovarian function." One obtains the impression that endocrinology has reached the point that it is indeed a difficult task for a single author to discuss the whole problem, and that it would be better to rely on texts dealing with individual phases of the subject.

Treatment by Diet. By Clifford J. Barborka, M. D., Department of Medicine, Northwestern University. Third edition. Cloth. Pp. 642. Price, $5. J. B. Lippincott Company.

The author's purpose is to present a concise, practical and systematic method of prescribing diets in the treatment of disease. He succeeds in his purpose and has made available a text that will be most helpful to the practitioner. All semblance of "fad" in diet is pleasingly lacking. There are many recommended outines of diets for varying conditions, all based upon caloric values. The section devoted to diabetic diet is most complete and is based upon sound principles.

All in all, the practitioner will find this text to be of every day practical value and will aid him in recommending and outlining proper diets in given conditions.

(Continued on Next Page)

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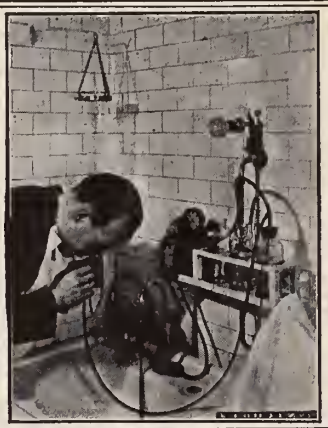

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(Continued from Preceding Page)

Pathology. By E. B. Krumbharr, M. D., Professor of Pathology, University of Pennsylvania. Pp. 206. Price, $2. Paul B. Hoeber, Inc., New York.

This is one of a series of handbooks under the general title of "Clio Medica." It aims to present in concise, readable form special phases of the long and complex history that underlies the science of medicine. In this volume the history and background of pathology is ably presented.

The volume is most interesting and pleasant reading. One finishes the final page with satisfaction because he has acquired a better insight of the road along which the men of yesteryears travelled to make pathology an outstanding science. This handbook is commended to all.

Obstetrics for Nurses. By Joseph B. DeLee, A. M., M. D., Professor of Obstetrics and Gynecology, Emeritus, University of Chicago; Consultant in Obstetrics, Chicago Lying-in Hospital and Dispensary; Consultant in Obstetrics, Chicago Maternity Center, and Mabel C. Carmon, R. N., Chief Supervisor and Instructor in the Birthrooms, Chicago Lying-in Hospital and Dispensary. Eleventh edition, revised and reset. Pp. 659, with 292 illustrations. Philadelphia and London: W. B. Saunders Company, 1937. Cloth, $3 net.

A very excellent, well written and illustrated manual for training schools and nurses. Can be recommended without reservation.

Pathology of the Central Nervous System. By Cyril B. Courville, M. D., College of Medical Evangelists. Cloth. Pp. 344. Price, $5.75. Pacific Press Publishing Association, Mountain View, California.

A painstakingly well written, carefully illustrated, dependable text. This text is based upon 15,000 autopsy findings. Special attention is given to the common diseases of the brain and cord. Development, gross appearance, and terminal stages of these lesions receive particular attention.

(Continued on Page 22)

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BOOK REVIEWS

(Continued from Page 20)

Physicians will find this book of helpful assistance, up-to-date and meriting a place on their reading stand for frequent reference.

Injuries and Diseases of the Hip. By Fred H. Albee, M. D. Cloth. Pp. 298. Price, $5.50. Paul B. Hoeber, Inc.

Conservative and operative treatment of diseases and injuries of the hip joint as employed by the author. Imparts accepted principles and technique. Nothing new.

Diseases of the Eye. By Charles H. May, M. D., Columbia University. Pp. 498. Price, $4. William Wood and Company, Baltimore.

This is the fifteenth edition of this manual, first published in 1900. It is revised to date. It presents a concise, practical and systematic manual of disease of the eye for the student and general practitioner. As such it will be found to be helpful and dependable.

The Human Body. By Logan Clendening, M. D. Third edition. Cloth. Pp. 441. Price, $3.75. Alfred A. Knopf, Inc.

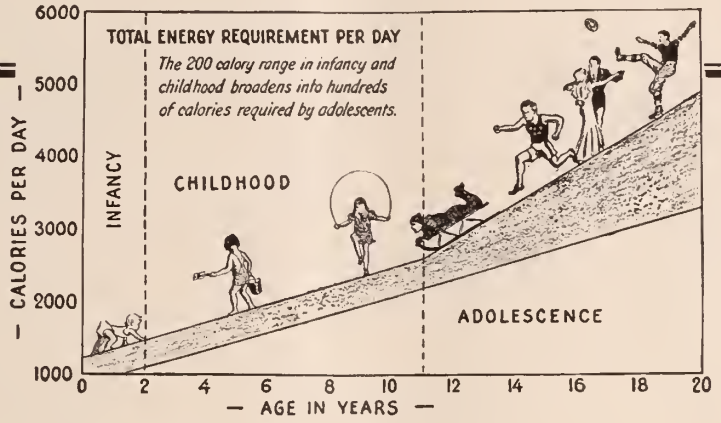
Here is a reliable text that you may safely recommend to lay persons. It gives true facts regarding the human body, its structures and physiological functions. Written so a lay person will understand.

Traffic in Health. By Charles Solomon, M. D., Long Island College of Medicine. Cloth. Pp. 393. Price, $2.75. Navarre Publishing Company, 10 East Forty-third Street, New York City.

A book that should be in the hands of every doctor and, what is more, every living adult. Why? Because it gives facts and details regarding the thousand and one ways by

(Continued on Page 26)

Careful study shows many young folks do not consume enough food to provide them with the enormous energy requirements necessary during the transitional period of adolescence. The symptoms are the consequence of undernutrition.



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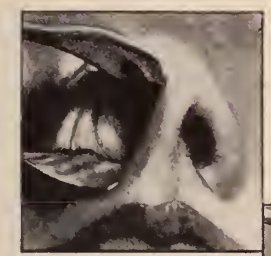

FIG. 1. J. M. C. White, female, age 4. June 5, 1936. Acute rhinitis. 11:40 A. M. Two inhalations of 'Benzedrine Inhaler'.

FIG. 2. 11:50 A. M. Maximum shrinkage evident.

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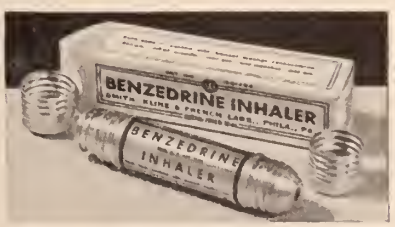

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(Continued from Page 22)

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Russian Medicine. By W. Horsley Gautt, M. D. Cloth. Pp. 221. Price, $2.50. Paul B. Hoeber, Inc.

Another of the series of "Clio Medica."

Interesting but lacking in detail, hence the reader obtains only a partial picture. Leaves one at sea and with many doubts.

Tramping to Failure. By Thomas Hall Shastid, M. D., Sc. D. Pp. 503, illustrated. Price, $4. Ann Arbor, Michigan: George Wahr, 1937.

How eventful has been the career, and how prolific also the pen of this quondam college professor of medicine, at present a distinguished resident of Duluth, Minnesota, and consulting ophthalmologist of St. Mary's and Miller memorial hospitals there, is reflected in these handsomely gotten up memoirs, just issued as one of a dozen or more volumes by the same author, "an old-time physician, an all-round student at universities, a worker for world peace," and, perhaps quite naturally, a novelist as well! His aim, as he himself declares, has been to "take the reader on an entrancing tour through the scenes of his questing life," and to "show the innermost phases of medical practice without the slightest reserve"; and how

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well he has succeeded one may judge on finding, clearly outlined, what is intended as "a strangely human story—one crowded with incident, absurdity, wit and humor, wildly enthusiastic scholarship, heroic, picturesque extravagances and—like almost all true autobiographies—inevitable and final defeat, though" (as the writer believes), "often defeat which some might call success." Challenged by the curiously enigmatical title, the reader may need to turn many pages, to discover the autobiographer's real point of view, and the goal he was seeking in his erratic wanderings and somewhat disjointed narrative; but he cannot fail to find intensely interesting the many grave or humorous anecdotes, the outcome of a wide, personal acquaintance with such men as Charles W. Eliot, Barret Wendell, George L. Kittredge, and Francis James Child, of Harvard. President Angell of Michigan, Ignace J. Paderewski and, last, but by no means least, most notable figures in the medical world. Professors Koenigstein, Bergmeister and Gruenfeld of Vienna are portrayed, as also Dr. Charles H. Mayo of Rochester; and that esteemed and beloved pillar of Columbia and the College of Physicians and Surgeons, Dr. Charles F. Chandler, characteristically introduced with the laconic observation: "Professor Chandler would not wear a gown"!

Your Diet and Your Health. By Morris Fishbein, M. D., Editor of the *Journal of the American Medical Association.* Pp. 298, illustrated. Price, $2.50. New York and London: Whittlesey House (McGraw-Hill Book Company, Inc.), 1937.

Written in a popular vein sure to attract the average lay-reader, still inquiring as when, twenty-five years ago, the word "vitamen" was first coined, and often still as puzzled concerning calories, protein, carbohydrates, and mineral salts, and yet with a thought to the fact that even physicians are learning more and more about foods and digestion, and with each additional aid are thus able the better to guide others in commonsense dieting, this new work by the editor of *Hygeia* is full of practical suggestions, informative and illuminating. It is also entertaining in its discussion of food fads and faddists, such as Fletcher, who, in three months, "nearly killed" Henry James, the novelist; Graham, who gave a despairing world both graham

(Continued on Next Page)

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BOOK REVIEWS

(Continued from Preceding Page)

crackers and graham bread; Haig, who added to human worries new theories about uric acid, and the "whole-wheat" fanatics—too numerous for monumental memorials—and, finally, the water-devotees, who "wear a path from desk to drinking fountain"! A frank discussion of the relation of diet to weight, a review of accepted scientific conclusions as to various common foods, suggested special diets for those battling ill health conditions, including anemia, blood pressure, hardening of the arteries, arthritis, and gall-bladder and kidney diseases, and important facts set out in tables, all contribute to make Doctor Fishbein's treatise a *sine qua non* more than ordinarily fresh and appealing: an excellent book for every home library.

There is no question to decide as to whether or not prophylactic treatment is needed in the eyes of the new-born; it should be applied in *all* cases.

TWENTY-FIVE YEARS AGO

(Continued from Text Page 288)

From an Article on "Three Dream-State of Delirium Tremens and the Inadequacy of the California Statutes in Not Covering Certain Conditions of Irresponsibility for Crime, Exemplified in an Unusual Case" by A. W. Hoisholt, M.D., State Hospital, Stockton.—Before taking up the particular form of dream-state which my case illustrates, I wish to make a few remarks concerning the physiological processes from which it is evolved. . . .

Paracelsus.—He hoped to free medicine from its worst errors "not by following that which those of old taught, but by our own observation of nature, confirmed by extensive practice and long experience. . . . If I want to prove anything, I shall not try to do it by quoting authorities, but by experiment and by reasoning thereof."

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* * *

FORM OF CLAUSE OF WILL PROVIDING FOR BEQUEST OF PERSONAL PROPERTY

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used and applied for scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

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I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California, to aid and further its scientific, educational, and hospital purposes, and to be known as the ——— Gift, the following described real property situate in the County of ———, State of California, and more particularly described as follows, to wit:

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used for and applied to the support and maintenance of scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

* These Bequest Forms were discussed editorially in CALIFORNIA AND WESTERN MEDICINE, for March, 1936, p. 145, and June, 1936, p. 460.

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(Continued from Text Page 288)

the outcome of an announced appeal of the decision by Long's lawyers. . . . (San Francisco *Examiner*, August 22, 1937.)

"Dr. Claude C. Long, found guilty last week of manslaughter in connection with the abortion death last May of Mrs. Genevieve Arganbright, learned yesterday that troubles do not come singly. He was named defendant in a $100,000 damage suit brought by Mrs. Arganbright's husband, Perry, and their five-year-old son, Perry, Jr. Asking $50,000 general and $50,000 punitive damages, the father and son represented by Attorney Edward J. Lynch, named Doctor Long, his wife, Isabel, and Mrs. Ann Fisher in the suit, charging them with malpractice. Mrs. Long and Mrs. Fisher were acquitted during the recent trial. Filing of the suit followed close on the heels of Arganbright's appointment as guardian *ad litem* of his son by Superior Judge Goodell. The suit alleged that the operation was performed in a Haight Street flat that had no hospital equipment; that instruments used were not properly sterilized; that no skilled assistants were present during the operation and that Doctor Long performed the operation with the wrong instruments." (San Francisco *Chronicle*, August 14, 1937.)

"Grover Talbot, forty-seven, local chiropractor, was held at the county jail today on charges of performing an illegal operation on an 18-year-old Palo Alto housewife." (San Francisco *Chronicle*, August 22, 1937.)

After deliberating twenty minutes a jury in Municipal Court acquitted J. Y. Lee, Chinese herbalist, on the charge of violating the State Medical Practice Act. Lee was

(Continued in Back Advertising Section, Page 34)

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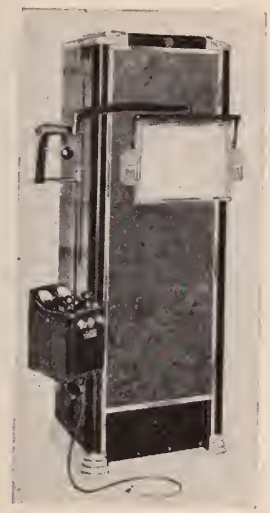

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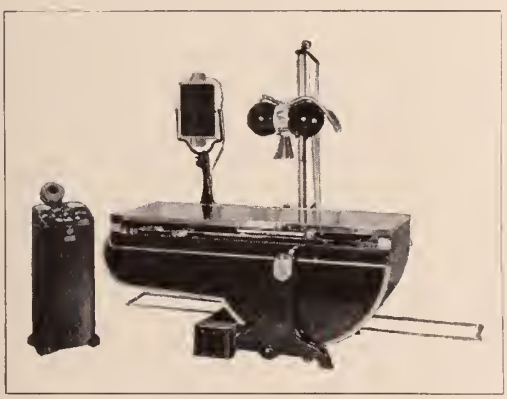

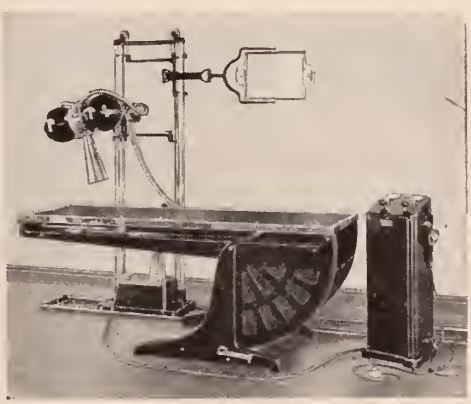

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EDITOR . . . . . GEORGE H. KRESS

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Change of Address.—Request for change of address should give both the old and the new address. No change in any address on the mailing list will be made until such change is requested by county secretaries or by the member concerned.

Responsibility for Statements and Conclusions in Original Articles.—Authors are responsible for all statements, conclusions and methods of presenting their subjects. These may or may not be in harmony with the views of the editorial staff. It is aimed to permit authors to have as wide latitude as the general policy of the Journal and the demands on its space may permit. The right to reduce or reject any article is always reserved.

Contributions—Exclusive Publication.—Articles are accepted for publication on condition that they are contributed solely to this Journal. New copy must be sent to the editorial office not later than the fifteenth day of the month preceding the date of publication.

Contributions—Length of Articles; Extra Costs.—Original articles should not exceed three and one-half pages in length. Authors who wish articles of greater length printed must pay extra costs involved. Illustrations in excess of amount allowed by the Council are also extra.

Leaflet Regarding Rules of Publication.—CALIFORNIA AND WESTERN MEDICINE has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

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EDITORIALS†

PUBLIC HEALTH EXHIBITS IN STATE AND COUNTY FAIRS: SYPHILIS EXHIBIT AT SACRAMENTO STATE FAIR

Syphilis Exhibit Visited by Hundreds of Citizens.—Several weeks ago, members of the California State Board of Public Health visited the Sacramento State Fair in order to observe for themselves the public's reaction to a syphilis exhibit which had been installed. It was gratifying to note that the display, in spite of not being elaborate, was surrounded by citizens in lines of two and three deep, who were reading the placards, helping themselves to educational leaflets, or signing their names on confidential request cards for further information. The sign over the exhibit contained the single word, SYPHILIS, in massive letters that could be read a city block away. In view of the attitude of the lay press in tabooing the word "syphilis" (a few newspapers only, in the last year or so, having at last had the courage to print articles about the disease), the interest displayed among the Fair visitors, by both men and women, was most illuminating. It is an indication that this disease, responsible for such a vast amount of primary and secondary disease and death, and for so long a period under taboo in all circles other than medical, is scheduled to take a lesser rôle in future morbidity and mortality tables, just as happened in the warfare against tuberculosis. It is heartening, also, to know that people at large have this honesty of approach in relation to lues, presenting an example that newspapers might well follow. In time, no doubt, the press will likewise see the light, and the aid of the lay editors will make for larger results in the antisyphilis campaigns* of education that must be carried on, for years to come, if ultimate victory is to be won.

* * *

How One Phase of the Syphilis Problem Is Being Solved by San Diego's Health Officer.—In a conversation concerning the solution of the syphilis problem, at the recent San Jose meeting of municipal health officers, Dr. A. M. Lesem of San Diego outlined to us the steps he had taken to

† Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column which follows.

* Concerning the campaign recently inaugurated against syphilis by the United States Public Health Service, the article concerning Dr. William F. Snow, in the Special Articles department of this issue should be of interest (see page 280).

eliminate syphilitic food handlers in his community. The enforcement of San Diego inspection ordinance made it possible for him to learn the names of food handlers afflicted with syphilis, and all such persons were notified to report to the department clinic for instructions. There, an earnest effort was made to learn from whom the disease had been contracted, with penalty of loss of position if information was refused. When the food handler gave coöperation, he was sent to his physician for treatment, and, through the medical reports, a consistent check was maintained concerning the patient's progress. If, however, the food handler discontinued treatment before release by his physician, he was promptly notified to come to the department's syphilis clinic for examination. If further treatment was indicated, and the patient refused it, he was informed that if he continued in his occupation as a food handler, the penalties prescribed in the city's ordinance would be instituted. Prompt coöperation was the usual result. One other point, as regards success in work of this kind, and stressed by Dr. Lesem, was the importance of the health officer working in thorough understanding and accord with the members of his county medical association, a factor of importance, worthy of remembrance, not only by all public health officials, but also by physicians in private practice.

As regards the decrease in syphilis incidence, many physicians are skeptical of good results being possible; and well they may be, if the old methods of attack are to be used. However, if we can learn who are the citizens who have syphilis; and if then a real endeavor is made to reach the person responsible for the primary infection, so that this important person in the casual relationship may also be placed under observation and treatment, and if procedures exist through which the treatment may be properly maintained, with penalties for noncoöperation, then real progress in overcoming syphilis may be attained. Of course, in private practice, the problem takes on more difficult aspects than in the supervision of food handlers, where ordinances with penalty provisions make it possible to initiate disciplinary action along lines above indicated.

* * *

Educational Campaign Will Bring Results.—The outlook, however, is not disheartening. We need only remind ourselves that less than a half-century ago it was the vogue in many communities for certain families to attempt to conceal or deny the existence of tuberculosis when it was present, in order to avoid the stigma of having a consumptive in the family! The morbidity and mortality rates of tuberculosis of fifty and twenty-five years ago were much higher than those of the present day. Why? The answer is found in the educational campaign—in which Christmas seals have played no small part—that has created a new approach to tuberculosis for both physicians and lay citizens. So, also, equally good results in overcoming syphilis and gonorrhea may be realized, if adequate educational and other necessary measures are inaugurated.

State and County Fairs a Logical Place for Public Health Exhibits.—To return, however, to the value of state and county fairs as measures of educating the citizenry of California on matters pertaining to the public health. More than ten years ago, Doctor Hay of Nebraska, at a meeting of secretaries and editors of state medical associations, held in the American Medical Association headquarters at Chicago, told of the good results through exhibits at fairs held in his state. Since then, comment has been made on this subject in the OFFICIAL JOURNAL on a number of occasions, and it is to be hoped that at an early day adequate funds and appropriations may be secured for the development and maintenance of public health exhibits in the state and county fairs of California. These fairs are annually visited by hundreds of thousands of citizens, and their splendid buildings make easily available the dissemination of information on public health matters, so much needed by the six million citizens of the state. If the industrial and agricultural interests of California find the state and county fairs worthy of such continued support, why should they not be an equally good field for salesmanship in the dissemination of public health knowledge?

* * *

Public Health Exhibits at Golden Gate International Exposition.—In this connection, plans of broad scope should be made for public health exhibits at the Golden Gate International Exhibition in 1939; along lines, or better, if possible, than those which excited so much favorable comment at the Century of Progress Exposition in Chicago. Members of the Association who have suggestions to offer on the nature and scope of public health exhibits are requested to send the same to the offices of the California Medical Association and to the California State Board of Public Health, the addresses of which are always printed in the rosters which are given place in each issue in the front advertising section of the OFFICIAL JOURNAL. The officers of both organizations will appreciate such coöperation.

THE PASSING OF A GREAT EDITOR: GEORGE H. SIMMONS, 1852–1937

Essential Elements in the American Medical Association's Reorganization Plan of 1901.—The death, on September 1, of the editor and general manager emeritus of *The Journal of the American Medical Association* brings to the minds of the older members of the medical profession the important services which the late Dr. George H. Simmons rendered to organized and scientific medicine. Few physicians, in their day, have been subjected to the attacks he went through, and it is to the credit of the American Medical Association, that in 1894, when Doctor Simmons laid down the responsibilities of the offices of editor and general manager of the American Medical Association, the American Medical Association trustees maintained his name in the *Journal of the American Medical Association* as editor and general manager emeritus. For to his great influence with

other leaders, the American Medical Association is largely indebted for the reorganization plan adopted at the St. Paul session of the American Medical Association in 1901, under which the medical profession of the United States today functions through one strong national organization, made of constituent state associations (one, and one only, for each commonwealth), these in turn composed of component county societies (one, and one only, for each county). The passing years have emphasized the value of this centralized recognition and authority vested in one single national association as the representative organization of the entire medical profession of the United States; the same plan operating with equal efficacy in each of the states of the Union, and, also, in every one of the counties that make up the respective commonwealths. The adoption of that simple but far-reaching plan in St. Paul in 1901 made for the automatic demotion and elimination of many organizations which, up to that time, imagined themselves possessed of prestige and rank equal to that of the American Medical Association.

The great progress made in American medical organization work in the last thirty-six years may be said to have its basic strength in the above plan, and in its correlated factor of a representative legislative body, the House of Delegates, through which the business of the national and state associations is carried on. That we have this beneficent organization plan, and that the medical profession has been able to lift itself out of the confused organization set-ups in existence some four decades ago, is largely due to the late Dr. George H. Simmons and the group of men who, in those earlier days, worked with him to bring order out of chaos in organized medicine, in order that through better methods more efficient service and progress might also be carried on in the domain of scientific medicine.

* * *

Organized Medicine Renders Its Tribute to a Great Leader.—California and Western Medicine, for the California Medical Association, joins with the official journals of other constituent state medical associations to pay tribute to the memory of the late George H. Simmons. From the *Journal of the American Medical Association* some paragraphs concerning his work are given below:

The Journal of the American Medical Association was established in 1883. When Doctor Simmons took over the editorial supervision and management, its total subscription list was approximately ten thousand. From that time it showed continuous improvement. Furthermore, under his leadership it became a significant weapon in the initiation and progress of great movements for the advancement of medical education and medical science. In 1901 *The Journal* began the annual publication of information concerning the medical schools of the country. In 1903 it undertook publication of the results of the examinations of graduates in medicine for licensure by state examining boards. The next step was the organization of the Council on Medical Education and Hospitals in 1905. At the same time the Council on Pharmacy and Chemistry was developed, and in association with it the chemical laboratory and the Department of Propaganda for Reform, which eventually became the Bureau of Investigation. Thereafter came other councils and departments. . . .

As an editor, Dr. George H. Simmons was alert and fearless. His attacks on quackery and fraud in the field of medicine brought on his unwearying head and shoulders the counter-attacks of those who saw their unscrupulous exploitations exposed and their incomes discontinued. It was his policy never to reply to any of the personal attacks made on him in the course of his service. . . .

This, then, is briefly the record of Dr. George H. Simmons as an executive and administrator. His work for the American Medical Association was characterized by intelligence, unselfishness, initiative, honesty, and righteousness. In his personal life he had his share of physical and mental suffering. He weathered storms of unjust criticism and false characterization of his administration. He devoted himself almost objectively and completely devoid of personal interest to the public career which he had chosen. Unquestionably, he was the greatest factor in his generation in the development of the American Medical Association and the profession that it represents. . . .

GOVERNMENT MEDICINE

Senator James Hamilton Lewis' Joint Senate Resolution 118.—In the August issue, on page 75, under the above caption, some references were made to the address of Senator James Hamilton Lewis of Illinois, given by him at the June 10 meeting of the House of Delegates of the American Medical Association. We stated that Senator Lewis' remarks, as printed in the *Journal of the American Medical Association,* seemed somewhat vague. That criticism applies likewise to Joint Resolution 118, introduced by the Honorable Senator from Illinois at the session of Congress recently adjourned; his resolution being referred in regular form to a Senate committee (Finance). In what dress it will make its appearance at succeeding sessions of Congress is difficult to forecast. Some of the provisions in the draft of Joint Resolution 118 imply that they cannot be taken seriously at this time. However, as one of the modern-day expressions of a form of proposed "state medicine," it is worth perusal, and for reference and historical purposes is here given in full:

Senate Joint Resolution (118)

To provide medical aid for the needy and the stricken with illness who are unable because of poverty to provide treatment and hospitalization; also to establish all licensed medical practitioners as civil officers of National Government.

Whereas, The Federal Government has recognized its social responsibilities to its citizens by the enactment of the Social Security Act; and

Whereas, An extension of such responsibilities is necessary to provide adequate medical care and attention for the impoverished and needy to assure the full enjoyment of social security; therefore be it

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That all physicians and surgeons who practice the profession of medicine or surgery in the United States or its territories are hereby declared to be civil officers of the United States for the purposes of this joint resolution.

Sec. 2. Any such physician or surgeon shall render such medical or surgical aid requested of him by any impoverished individual who is in need of such aid, and, where necessary, to order the hospitalization of any such individual. Any hospital to which such an order is directed shall, in so far as its facilities permit, provide for the hospitalization and care of any such individual in the manner best adapted to accomplish his recovery.

Sec. 3. Any physician, surgeon, or hospital rendering aid to impoverished individuals as provided in Section 2 are authorized to make such charges for such aid as are reasonable and just. Bills for such charges shall be submitted to the Social Security Board, which is authorized

and directed to pay them, under such rules and regulations as it may prescribe.

Sec. 4. (*a*) It shall be unlawful for any physician, surgeon, or hospital official or employee to refuse to render aid as provided for in this joint resolution, or to make exorbitant or excessive charges for such aid, or to make any charge against an individual to whom aid has been rendered in addition to the charge paid by the Social Security Board.

(*b*) It shall be unlawful for any person fraudulently to represent that he is impoverished for the purpose of receiving aid under this joint resolution.

(*c*) Any person violating any of the provisions of this joint resolution shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be fined not more than $1,000, or imprisoned not more than three months, or both.

Sec. 5. The Social Security Board shall have power to make such rules and regulations as may be necessary to carry out the provisions of this joint resolution.

Sec. 6. There is hereby authorized to be appropriated such sums as may be necessary to carry out the provisions of this joint resolution.

* * *

An Article on "Government Medicine" by David Lawrence, Editor of the "United States News."—David Lawrence, editor of the *United States News*, in a syndicated article recently printed a story of one of the plans "urged by persons inside the Administration who see the job possibilities and patronage potentialities of a medical bureaucracy in the Government." The Lawrence dispatch may be read, (on page 285), in connection with Senator Lewis' joint resolution.

* * *

Editorial Comments on the Lawrence Article. The statements by Mr. Lawrence did not escape criticism, and from editorial comment in the *San Francisco Chronicle* of August 27 the following excerpts are taken:

The very first requirement of a sound health insurance system on a state or national scale is that the patient shall choose his own physician, as he does now, and deal with him individually; as he does now, in all respects except paying his bills. And even these bills are paid from the insurance fund, not by the taxpayers; and the physician is not a state employee, nor even an insurance fund employee, but an independent physician practicing medicine.

The objections to politically controlled state medicine are sound. So are the objections to the too low fees of certain European systems, which compel some doctors to serve too many patients for too little compensation and lower standards of work. But these are not objections to health insurance itself and they are evils which experience abroad has taught us how to correct. . . .

* * *

Politics and Health Insurance Do Not Mix.—In the *Chronicle* excerpts, we have italicized the sentence, "The objections to politically controlled state medicine are sound," because that is the important thought to be kept in mind in discussing governmental health insurance, be it either of federal or commonwealth type. Last month (in the September issue, page 145) we commented on the views expressed by Sir Henry B. Brackenbury of London, as made to a group of Los Angeles physicians, in which he emphasized the point that in his opinion state health insurance, to be successful, must be altogether divorced from political influences. Until such time as that much desired end can be attained in the United States, we shall continue skeptical as to the possibility of successfully instituting and carrying forward such a system in any of the states of the Union. In our American democracy, under the political systems now existing—vastly different as they are from the permanent civil service personnel background in Britain's plan of government—we find it impossible to visualize how our politicians would keep their hands off the moneys necessary to carry on a governmental health insurance plan.

* * *

Reaction to State Medicine by Non-Believers in Medical Science.—Presenting now, for comparison, the point of view of a group of Americans who cannot be said to be believers in medical science, we print an article on "State Medicine," which appeared in the *Christian Science Monitor* of September 4, 1937 (see Special Articles Department, page 276). Its perusal should likewise be of interest. Members of the Association who desire to read opposing points of view on the much-discussed topic, "State Medicine," may find the references of informative value.

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 259.

EDITORIAL COMMENT†

RECENT FRACTURES OF THE HIP: NEWER METHODS OF TREATMENT*

During the past five years, certain technical advances have placed the problem of fractured hip in a new light. These procedures involve the internal fixation of the head and neck of the femur by means of various types of nails or screws. Although such methods go back eighty years to Von Langenbeck,[6] the modern use of internal fixation of the hip dates from the work of Smith-Petersen,[1] who reported his first results with the three-flanged nail in 1931. Since that date a voluminous literature on this subject has sprung up. During the past three years, sixty-seven articles from thirteen different countries have dealt purely with the methods of introducing some type of metal fixation into a fractured hip. A recent issue of *Surgery, Gynecology, and Obstetrics* contains two excellent reviews[2,3] of this subject.

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

* From the Department of Surgery, Division of Orthopedic Surgery, University of California Medical School.

1 Smith-Petersen, M. N., Cave, E. F., and Van Gorder, G. W.: Intracapsular Fractures of the Neck of the Femur; Treatment by Internal Fixation, Arch. Surg., 23:715–759, 1931.

2 Smith-Petersen, M. N.: Treatment of Fractures of the Neck of the Femur by Internal Fixation, Surg. Gynec., and Obst., 64:287-295 (Feb. 15), 1937.

3 Moore, A. T.: Fracture of the Hip Joint—Treatment by Extra-Articular Fixation with Adjustable Nails, Surg. Gynec., and Obst., 64:420-436 (Feb. 15), 1937.

In the treatment of acute fractures of the neck of the femur, internal fixation is accomplished by means of a three-flanged nail or by multiple wires of varying size. An early exponent of the three-flanged nail was Johansson[4] of Sweden, who threaded the nail over a Kirschner wire which had been introduced through the line of fracture. Numerous other devices, usually on the principle of the protractor, have been used to guide the introduction of the nail. The instruments for its insertion, designed by White,[5] are probably the most satisfactory, because they also facilitate its extraction when necessary. Extensive experience in the use of multiple wires or small nails has been recorded.[3,6,7] Although authors differ as to methods, the general practice is to apply no external immobilization, such as a cast, following the nailing of the hip. The patient is permitted to move the knee and hip of the fractured extremity immediately after operation. Some surgeons suspend the fractured leg in a sling for from one to four weeks after nailing. The patient is usually allowed to sit up about one week after reduction, and is permitted to walk with crutches one or two months later. Full weight-bearing is not permitted until six months have elapsed.

Considerable controversy still exists as to the extent of the exposure necessary to permit placing the Smith-Petersen nail in the correct position. The creator of the nail originally exposed the site of fracture which was then reduced under his view; after reduction the nail was driven through the lateral aspect of the femur, traversing the neck of the femur and entering its head. This formidable operation was somewhat simplified by the lateral incision described by Watson-Jones.[8] Smith-Petersen now reduces the fracture by closed manipulation, after which a five-inch lateral incision exposes the upper end of the femoral shaft. The three-flanged nail is driven into the upper end of the femur in a direction determined by a study of x-ray films taken after reduction. All of these methods require two or three sets of anteroposterior and lateral roentgenograms, which are taken in the operating room and used as guides in subsequent steps of the procedure.

The writer obtained satisfactory results by the closed reduction of the fractured hip followed by the insertion of four or five heavy Kirschner wires, without incision. After the first wire was shown by the x-ray to be in proper position, the remaining wires were inserted at slightly different angles, the skin was depressed around the wires, which were cut off as close as possible, and the skin fell back covering the wires. A double spica cast was used in some cases. These wires were readily extracted after union had taken place. In the belief that the three-flanged nail offers a more secure form of fixation, it has supplanted the small wires in recent cases. Our present practice includes the closed reduction of the fractured hip under local anesthesia by the Leadbetter[9] maneuver. When the "heel-palm test" shows reduction of the fracture, a Kirschner wire is drilled through the skin and upper end of the femur in the position indicated by the roentgenograms. After check-up films in the anteroposterior and lateral planes have shown the wire to be properly placed, an incision three inches long is used to expose the point of entrance of the wire into the femur, and a Smith-Petersen nail is introduced beside the wire to a depth calculated in relationship to the wire. Final roentgenograms are taken to verify the position of the nail, and the incision is closed. No postoperative immobilization is used. The patient sits up in a chair after one or two weeks, and is permitted to walk with crutches after one month, although no weight-bearing is allowed until the films show bony union—usually three or four months after fracture. The nail is allowed to remain in place indefinitely unless symptoms result from its presence.

Statistics bearing on the end-results following the internal fixation of fractured hips are not complete enough to indicate the percentage of bony union. The American Academy of Orthopedic Surgeons has sent out questionnaires to clarify this point. In the last series of end-results given by Smith-Petersen,[2] bony union occurred in 70 per cent of all cases. In any such report, one must distinguish between the intracapsular and the intertrochanteric type of fracture, because union is the rule in the latter group.

It must be borne in mind that the introduction of a nail through the neck of the femur does not hasten the process of union, although the ideal conditions (reduction and fixation) are provided for the healing of bone. The internal fixation of the fractured fragments eliminates the necessity for a double spica cast. In the past, the aged patient, who has been compelled to lie in such a cast for three months, has frequently succumbed to pneumonia or uremia.

The added safety and comfort with the modern methods of treatment justify their use, although one must wait for bony union before weight bearing is permitted. A certain number of patients, in whom the result appears to be excellent four months after the fracture, will later show an absorption of the neck of the femur, and sometimes even a fracture of the nail. Occasionally the nail or wires become displaced. In spite of these unpleasant occurrences, it would appear that the use of internal fixation has gone far toward the solution of that which Speed[10] called "the unsolved fracture."

350 Post Street.

KEENE O. HALDEMAN,
San Francisco.

4 Johansson, S.: On the Operative Treatment of Medial Fractures of the Neck of the Femur, Acta. Orthop. Scandinav., 3:362–392, 1932.

5 White, J. W.: An Instrument Facilitating Use of the Flanged Nail in Treatment of Fractures of the Hip, J. Bone and Joint. Surg., 17:1065–1066, 1935.

6 Gaenslen, F. J.: Subcutaneous Spike Fixation of Fresh Fractures of the Neck of the Femur, J. Bone and Joint Surg., 17:739–748, 1935.

7 Telson, D. R., and Ransohoff, N. S.: Treatment of Fractured Neck of the Femur by Axial Fixation with Steel Wires, J. Bone and Joint Surg., 17:727–738, 1935.

8 Watson-Jones, R.: Fractures of the Neck of the Femur, Brit. J. Surg., 23:787-808, 1936.

9 Leadbetter, G. W.: A Treatment for Fracture of the Neck of the Femur, J. Bone and Joint Surg., 15:931–940, 1933.

10 Speed, K.: The Unsolved Fracture, Surg. Gynec., and Obst., 60:341–352 (Feb. 15), 1935.

DIAGNOSIS OF HEAD INJURIES

The diagnosis of head injury, with or without skull fracture, when manifested by the usual signs and symptoms, is not difficult. Roentgenograms are of assistance, although commonly are not helpful in the diagnosis of basal skull fracture. However, embarrassing tardiness in diagnosis frequently occurs.

In sober adults, with the history of severe injury to the head, with loss of consciousness, escape of blood, cerebrospinal fluid or brain matter through the cranial apertures, localizing signs of intracranial trauma or disturbance in hydrostatic pressure, etc., a diagnosis of cerebral damage is readily made. In alcoholics, epileptics, and children, however, the possibility is occasionally overlooked.

Skull fracture occurs more frequently in children than is commonly diagnosed. Basal skull fractures are apt to be overlooked in the group composed of intoxicated individuals. The orbital plates, lowermost portions of the middle and posterior fossae, sphenoidal cells, and the walls of the ethmoids are easily susceptible to fracture.

The history of the patient suffering from alcoholism may be as follows: He falls, or is otherwise injured, while intoxicated. He comes to the physician—frequently with a police escort if he be seen at an emergency hospital—or is visited at home. External evidence of trauma may be slight. There may be a hematoma, abrasion or other minor scalp lesion, a supra-orbital wound or, at times, no outward sign of injury whatsoever. The history and psychic response of the patient are of no value. Other injuries may or may not be present. The wound is treated and the patient discharged, observed until sobriety returns, or instructed to report to the physician's office the following day. After twenty-four to forty-eight hours, or later, unmistakable evidence of intracranial pathologic changes occur—cerebral edema, meningitis, subdural or extradural hemorrhage, etc.

This difficulty in diagnosis is likewise met in other injuries to alcoholic persons. It obtains not infrequently in rupture of the urinary bladder and less often to other intra-abdominal traumata. The patient under the influence of alcohol is, so to speak, narcotized or incompletely anesthetized. He may be euphoric and have a sense of well-being when severely injured.

In head injuries, with cerebral functions already disturbed by alcohol, subjective symptoms cannot be interpreted. Further, drunken persons are so frequently subjected to more or less minor injuries that the tendency in diagnosis is to minimize.

The diagnosis of head injury cannot always be made with certainty at the original observation, after even the most complete examination, and is, therefore, occasionally difficult until complications appear. Since the situation arises with almost monotonous regularity at the inquests of coroners in every large city, a warning seems timely.

490 Post Street.

Walter Birnbaum,
San Francisco.

DIAGNOSTIC POINTS IN PELVIC DISEASE

The immediate treatment of acute lower abdominal conditions, in particular those of the pelvis, is still in controversy, although it would seem that we have enough reliable data to warrant better agreement.

Diagnosis may be justifiably in doubt, and symptoms may seem urgent; yet pain, fever, leukocytosis, and even masses, do not always demand immediate operation. When in doubt a good rule, with not too many exceptions, is to treat with emergency surgery those cases with slow erethrosedimentation, and conservatively those with rapid rates.

Acute appendicitis, twisted pedicle cysts, and disrupted tubal pregnancies are, during their emergency stages, attended with relatively slow sedimentation rates, usually over thirty-five minutes, and all agree that surgery should not be delayed. Such conditions when neglected may, and often do, develop more rapid rates.

One hundred patients, operated upon for acute appendicitis, were studied at the Alameda County Hospital. Their sedimentation times were determined as follows:

Simple acute appendicitis, fifty-four cases: 28 were over 120 minutes; 14, between 60 and 120 minutes; 6, between 40 and 60 minutes; 5, between 25 and 40 minutes; 1 was 21 minutes.

Gangrenous appendicitis, twenty cases: 7 were over 120 minutes; 5, between 60 and 120 minutes; 2, between 40 and 60 minutes; 4, between 25 and 40 minutes; 2, below 25 minutes.

Abscessed and ruptured, twenty-six cases: 5 were over 120 minutes; 5, between 60 and 120 minutes; 7, between 40 and 60 minutes; 5, between 25 and 40 minutes; 4, below 25 minutes.

Seven, it is seen, had rapid sedimentations comparable with those found in acute pelvic inflammatory disease; and of these, six are found in the second and third groups which comprise the advanced or neglected cases. About 7 per cent, then, of appendicitis cases may be expected to have rapid rates, as against well over 90 per cent for the tube infections. So when this differential diagnosis is in question, the test may be the deciding factor.

There were eighty-eight tubal pregnancy patients in the same hospital, upon whom sedimentation tests were recorded: 32 were over 60 minutes; 11, between 50 and 60 minutes; 18, between 35 and 50 minutes; 27, less than 35 minutes.

Seventy-five minutes is the average time in ectopics *at the outset of symptoms.*

The twenty-seven rapid ones need explanation. Three were operated upon three, four, and five days after symptoms began, but the other twenty-four were not treated surgically till ten to forty days had elapsed. Delay in hospitalization of over 30 per cent of these patients shows the difficulty in home diagnosis under present conditions. Evidently competent consultation and more laboratory determinations are necessary.

Of the laboratory tests the blood sedimentation time is entitled to more consideration than it now

receives. If a laboratory is not available, an easy way to manage the determination is to have on hand a few one-dram vials with enough sodium citrate in each to make a 5 per cent solution upon filling the vial with distilled water. A tuberculin syringe and a Linzenmeyer tube are the other requisites. Ten minutes suffices to show whether the time is rapid or not.

In the hospital the difficulties of diagnosis are greatly increased by delay. Most of the group here reported were diagnosed before admission as pelvic inflammatory disease, and that point could have been settled early by one or two sedimentation tests. It is always rapid in salpingitis, and more rapid still when pus forms in the tubes or in the pelvic tissues.

The gynecologist in consultation often finds the leukocyte count already taken, but the sedimentation time seldom. The test has had enthusiastic attention in medical literature and its usefulness seems established.

Those who still believe that acute tubal disease should be treated like acute appendicitis will have less use for the test. But such surgeons are diminishing in number, and those remaining will do well to examine the convincing statistics of busy gynecologic clinics, and heed the advice of experienced gynecologic leaders.

Howard Kelly points out that acute gonorrheal salpingitis almost never ends fatally, that functional integrity of the tube is not always destroyed, that good peritonization is not possible, thus provoking annoying adhesions; that corrective procedures are ill-advised, and that ovarian conservation is attended by risk of failure. He adds that these and other reasons show that any radical exsective procedure during an acute salpingitis is usually unnecessary, and not in accord with surgical conservation; it should be resorted to where a spontaneous cure does not occur.

The late C. Jeff Miller, a great teacher, said in a forceful argument: "If a high mortality rate followed expectant treatment and deferred operation in tubal disease, the parallel with appendicitis would have to be respected, but actually the contrary is true; immediate operation in salpingitis simply introduces an unnecessary element of danger by spreading throughout the abdomen an infection, which, if let alone, would be localized in the pelvis in probably 99 per cent of all cases."

411 Thirtieth Street.

EDWARD N. EWER,
Oakland.

Depressions would not come, like locusts, to vex us if the persons elected to public office were adequately trained in the science and art of government. Jefferson and Hamilton knew the principles underlying their age of agriculture, craft, and small trade. Our complex times can be coped with only by those who command such subjects as economics, law, social and political theory, biology, and logic. A career of the highest merit is now opening to those who have resolved to prepare themselves for governmental service, doing it with such thoroughness as is found among those entering the medical profession. What the country needs above all is voters and office holders who reason from ascertained premises rather than let themselves be carried to conclusions by fear, favor, or pressure.—Leon J. Richardson.

ORIGINAL ARTICLES

ANESTHETIC GAS MIXTURES: THEIR EXPLOSION HAZARDS*

By CLARENCE G. TOLAND, M.D.
AND
WILLIAM P. KROGER, M.D.
Los Angeles

DISCUSSION *by William W. Hutchinson, M.D., Los Angeles; Harry J. Smith, M.D., Oakland; Charles F. McCuskey, M.D., Los Angeles.*

ANESTHESIA is a surgical necessity. From the purely surgical viewpoint there are only two main considerations in anesthesia: first, the safety of the patient, and, second, the proper and efficient application of the anesthetic agent to the operative maneuvers. A surgeon cannot divest himself of the responsibility for everything connected with the surgical operation, and the method of inducing and maintaining anesthesia.

SURGICAL ANESTHESIA BY GAS INHALATION

The comparative values of the different methods of inducing and maintaining surgical anesthesia—local, regional, spinal, rectal, and inhalation—judged from the criteria mentioned above, need not be discussed here. They are matters of opinion, and there are indications and contraindications for all of them. The fact is, that in an overwhelming majority of important surgical procedures the method of obtaining surgical anesthesia by gas inhalation is that selected by surgeons and, until some more perfect method is discovered, this will probably continue to be the case. There are, of course, drawbacks, dangers, and postanesthetic complications associated with all types of inhalation anesthesia, and they are fairly well known and discussed in the literature.

CYCLOPROPANE

Personally, we have found cyclopropane-oxygen to be the most satisfactory general anesthetic gas mixture, and have used it in a large majority of our cases during the past few years, since its properties have been fully established clinically.

Cyclopropane, a hydrocarbon gas formerly called trimethylene, is an isomer of propylene; it is inflammable and explosive with mixtures of 20 to 85 per cent of oxygen; it is non-irritating and is rapidly eliminated unchanged from the body. As an anesthetic agent it seems to combine the safety and speed of nitrous oxid with the calm, quiet, and moderate relaxation obtained with chloroform. It possesses the desirable feature which makes ether so popular, namely, that in the event of an overdose the respiration fails before the heart. Cyclopropane has a relatively low toxicity and, according to Woodbridge,[1] its administration abolishes the cyanosis and diminishes the dyspnea of patients with decompensated hearts. The large amount of oxygen in cyclopropane oxygen mixtures makes this type of anesthesia useful in patients with severe

* Read before the Anesthesiology Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.

anemia, as well as those who are to have thoracic operations. The return to consciousness following cyclopropane anesthesia is easy and rapid.

EXPLOSION RISKS

Such an excellent anesthetic agent as cyclopropane, possessing so many desirable features from the clinical surgical standpoint, and comparatively free from features which make other inhalant gas anesthetics undesirable, should not lightly be disparaged. We have referred to the fact that all anesthetic gas mixtures have some drawbacks, one of these being the very slight risk of explosion. The fact that ether-air vapor is explosible in the presence of a high degree of heat has been well known to surgeons. However, there are still many surgeons under the erroneous impression that an ethylene oxygen gas mixture is the only other one from which an explosive risk might be feared. A few years ago this explosive risk regarding ethylene was so much publicized and exaggerated (and at the same time the equal risk of ether-oxygen and nitrous oxid-oxygen-ether mixtures ignored) that a very great injustice was done to this valuable anesthetic agent. Petersen[2] asked, in 1929, why should ethylene be discarded, since its advantages have been appreciated in nearly fifteen thousand cases? The same remark holds today in regard to the feature of explosibility, which is no greater in the case of ethylene than with ether.

It has been established, and will be shown, that all the commonly used anesthetic gases, when mixed with air, oxygen, or nitrous oxid in proportions which are usually within the limits employed in induction or maintenance of surgical anesthesia, are explosible, and a cyclopropane-oxygen mixture shares this common risk. An explosion does not depend solely upon the nature of the gas mixture used, and under the same circumstances a minor, serious, or even fatal explosion might occur with one mixture as well as another.

We repeat for emphasis that the risk of explosion is one that applies to all the commonly used anesthetic gas mixtures; that it is a very slight risk, and of far less moment to the patient and to the surgeon than the toxic or other complications that can and do often arise with the improper use of inhalant anesthetics. Many so-called postoperative deaths are in reality postanesthetic deaths.

We have made these introductory remarks because of a fatal explosion which recently occurred in a Los Angeles hospital in which cyclopropane was the chief anesthetic agent. This, so far as we know, has been the only explosion reported in more than 75,000 cyclopropane anesthesias since its introduction a few years ago. Such an occurrence, coming to the knowledge of surgeons not fully informed regarding the explosion risk in inhalation anesthesia, might have the effect of disparaging this most excellent general anesthetic. It is chiefly to obviate such a feeling, as far as possible, that we write this paper.

CAUSES OF ANESTHETIC GAS EXPLOSIONS

In looking into the causes of anesthetic gas explosions, we find that such an explosion is not due to the essential nature of the gas mixture used. There are two factors necessary before an explosion can take place, namely, the presence of an explosible gas, and the presence of an open light or spark or sufficient heat to explode the gas. No matter how explosible a gas mixture may be, it seems to be true that it will not explode spontaneously, and no explosion can take place except when the ignition factor is present.

EXPLOSIBLE GAS MIXTURES

We will consider the two factors in detail. First, let us take the matter of explosible anesthetic gas mixtures. All commonly used anesthetic gases, when employed with oxygen or air, direct, rebreathed or expired—ether-oxygen, ether-air, nitrous oxid-oxygen, nitrous oxid-air, nitrous oxid-oxygen-ether, nitrous oxid-air-ether, ethylchlorid-oxygen, ethylene-oxygen, cyclopropane-oxygen, or chloroform-ether—are explosible mixtures when the oxygen support for combustion is sufficient. Contrary to popular opinion, an ethylene-oxygen gas mixture has apparently only the same relative danger, from the explosive point of view, as any other gas-oxygen mixture.

Gwathmey,[3] in his book on "Anesthesia," cites a report by J. K. Mabbs, Research Engineer of the Linde Air Product Company, made at the request of the chief chemist of the Carbide and Carbon Chemical Corporation. After exhaustive work over a long period, Mabbs reported: "In view of the evidence presented, it appears that the relative explosion hazards of ethylene-ether and propylene, when mixed either with air or oxygen, are practically equal." According to an English authority, Professor Finch,[4] explosibility varies according to the combustible and supporting medium, whether it is air oxygen or nitrous oxid. Generally, the higher the proportion of oxygen or nitrous oxid in a gas mixture, the greater is its explosibility. Finch[4] states that nitrous oxid is even a better supporter of combustion than oxygen.

The proportions of anesthetic gas and oxygen in the commonly used anesthetic gas mixtures are, approximately, as follows:

No account is taken here of the oxygen in rebreathing, or of mixtures of anesthetic gases and expired air in the apparatus or in the vicinity of

TABLE 1.—*Proportions of Anesthetic Gas and Oxygen in Anesthetic Gas Mixtures*

Anesthetic Mixture	Anesthetic Gas Per Cent	Oxygen Per Cent	Remarks
Ethylene-oxygen	65 to 85	35 to 75	The proportion of oxygen may be much higher.
Nitrous oxid..	90	10	Oxygen content varies considerably.
Ethylchlorid-oxygen	75	25	
Cyclopropane-oxygen	15	85	
Ether-oxygen	3–5	91–95	

the patient. Nitrous oxid-oxygen mixtures, as commonly used, are outside the limit of explosibility, but expired or rebreathed air may make a great difference.

It is probably true that the higher percentage of oxygen in ethylene and cyclopropane-oxygen mixtures furnishes a more explosible mixture in the presence of a flame or spark, but any other commonly used anesthetic gas mixture will explode under the same circumstances, and there is no guarantee that such an explosion will not be serious or even fatal. The high percentage of oxygen in the mixtures referred to is a very distinct advantage to the patient, and his risk of an explosion is not apparently greater than with other gas mixtures.

Regarding ether, as already stated, the danger of fire and explosion from a flame or a hot cautery in the vicinity of ether-air vapor has been known since the introduction of ether as an anesthetic, and precautions are usually observed. At the present time electrocauteries seem to be often used with ether anesthesia. Williams[5] points out that with the types of apparatus used at present, the explosion danger would appear to be as great with ether as with ethylene, and that minor explosions of ether-oxygen have not infrequently occurred during the cleaning of apparatus, although but little publicity has been given to them. He also states that there are very real dangers accompanying the use of ether with nitrous oxid and oxygen, for ether-air or ether-oxygen vapors are liable to mix with nitrous oxid in the rebreathing bag. Brown[6] says that nitrous oxid-oxygen, or even pure nitrous oxid passing through an ether chamber, forms a highly explosive mixture; and Finch[4] states that an ether-air mixture can propagate a cool flame which cannot be detected except in a dark room, and which is capable of causing an explosion.

Ethylene-air-oxygen and cyclopropane-air-oxygen mixtures are highly explosive. Regarding ethylene, Brown states that a mixture of ethylene and oxygen containing less than 25 per cent of oxygen cannot be exploded. The combinations commonly used contain a much higher proportion of oxygen.

Ethyl chlorid is an inflammable gas. It yields a vapor that forms an explosive mixture with air, and is dangerous in the vicinity of heat or an electric spark.

Chloroform-ether, the English A. C. E. mixture, is explosible when mixed with air.

EXCITING CAUSE IN ANESTHETIC GAS EXPLOSIONS

We now proceed to the consideration of the second necessary factor in the causation of anesthetic gas explosions, namely, heat or an ignition spark in the vicinity of the gas mixture. The danger from the use of cauteries or the presence of an open flame has already been mentioned and need not be further discussed. The most important element, however, in the causation of an explosion with anesthetic gas mixtures is the production of a "jumping" spark by friction from static charges of electricity accumulated on the apparatus or the personnel in operating rooms. Such a spark is the natural result of the effort to restore electrical potential equilibrium, and such a natural discharge is the cause of most of the explosions; it has nothing to do with the nature of the explosible gas.

Buchman[7] of the Research Department of the Ohio Chemical and Manufacturing Company, in a paper on safeguarding the use of inflammable anesthetics, states that we do not know what static electricity is nor what natural laws it follows. One way of creating static electricity is by the contact or separation of two substances, one or both of which may be a nonconductor. Thus, a static charge may be formed on the person by walking over a rug or rubber. The flow of a dry gas through an orifice builds up a static charge in the same way. Once an electrostatic potential is established, until that potential is discharged it remains on the charged object ready to cause trouble if it escapes by jumping or sparking. If this occurs in the vicinity of an explosive gas mixture there is an explosion.

Dr. Isabella Herb[8] of the Presbyterian Hospital, Chicago, states from actual experimental observations that the conditions in hospital operating rooms and the passages leading to them are such that personnel and machines may become statically charged if they touch pipes and other charged objects. The rubber and metal of carts bringing patients into the room may bring charges into the room from the outside.

It is easy to understand that in hospitals and other large buildings in cities, with a multiplicity of pipes and other metal fittings in their construction, these latter may receive induced electric charges from an atmosphere highly charged from the vicinity of trolley and other high-tension cables. The dust particles in the path of atmospheric electric charges may become electrically charged.

The danger of a spark from friction would appear to be especially great in or about the metallic parts of the anesthetizing apparatus, especially the tubes when they are moved about. We really know very little of the method of formation of sparks in the vicinity of high potential surfaces, but a very slight spark suffices to cause an explosion with any explosible gas mixture, and such an explosion may be minor, serious, or fatal, according to circumstances.

LITERATURE ON ANESTHETIC GAS EXPLOSIONS

Having discussed the two main factors concerned in causation of anesthetic gas explosions, it will be appropriate to glance at the literature in order to show that such explosions do actually occur with all kinds of anesthetic gas mixtures. Unfortunately, for very obvious reasons, reports of explosions are not often published. Neither hospitals nor surgeons care to publicize such mishaps and, generally speaking, it is only in the case of a fatality, when there is a coroner's inquest, that the occurrence comes to light in the public press.

First, let us take ether explosions. Gwathmey[3] says that ether-oxygen mixtures have been known to explode with serious violence as the result of a jumping spark. He does not cite any cases. In the *Journal of the American Medical Association* of May 31, 1929,[9] there is mention of an explosion

in Cheltenham, England. An electric spark caused a bottle of ether to explode; the two surgeons and the patient were seriously injured, and the operating room set on fire. In the *Journal of the American Medical Association* of November 7, 1925,[10] there is a report of a fatal explosion in a boy's mouth in an English hospital during an operation. Ether-oxygen was the anesthetic. The apparatus also burst into flames.

The *Journal of the American Medical Association* of June 13, 1931,[11] reports an anesthetic explosion fatality in an operation upon the throat. A mixture of ether and oxygen was the anesthetic, and the surgeon was using a pencil light which was receiving electric current from an accumulator. This surgeon stated at the inquest that he had two previous experiences of similar explosions, in both of which an ether-oxygen mixture was the anesthetic. Tiegel,[12] in 1934, reported an ether explosion in the operating room of a German surgical clinic, in which the personnel were seriously injured. In the *Journal of the American Medical Association* of May 25, 1935,[13] mention is made of the case reported by Dr. R. Ironside of England. There was a violent ether-oxygen explosion in the operating room, apparently due to a spark emanating from an anesthetic trolley car passing for a long time over rubber floor covering. Several persons were seriously injured, and the patient was thrown off the operating-room table. The anesthetic mixture contained 75 per cent of oxygen and 5 per cent of ether. Of the three anesthetic gas explosions mentioned in the *Journal of the American Medical Association* of January 25, 1936,[14] the anesthetic gas mixture in one case was ether-oxygen.

From replies to a questionnaire, Henderson[15] found that nineteen hospitals reported ether "flares." In four cases the explosion occurred in connection with the use of anesthetic apparatus administering nitrous oxid, oxygen and ether.

In a questionnaire sent out by Dr. J. M. Scott (cited by Henderson), fifty-nine surgeons reported nineteen ether anesthesia explosions, of which five were serious, with two fatalities. The number of anesthesias is not given.

Regarding ethylene-oxygen mixtures, Dr. Isabella Herb[8] reported five minor explosions with this mixture within one year. Davis[16] reported a very serious but not fatal ethylene explosion, and there have been several other minor explosions reported in the literature.

Henderson[15] sent a questionnaire to the large hospitals of the United States and received replies from 288. In 118 hospitals more than 330,000 ethylene anesthesias had been administered without a single explosion, much less a death. In forty-two hospitals, in which more than 146,000 ethylene anesthesias had been administered, five reported explosions.

Henderson states that to a questionnaire sent out by Dr. J. M. Scott to a number of prominent surgeons, replies were received from fifty-eight. In more than 163,000 ethylene anesthesias there were eighteen explosions, of which five were serious, but only one fatal. Most of these explosions were due to discharges of static electricity.

Petersen[2] reported a double fatality, mother and fetus, in a case of anesthetic explosion; the mixture being used was 25 per cent ethylene and 75 per cent oxygen. A static electrical discharge appeared to have been the cause.

Regarding nitrous oxid, Herb[8] reports two explosions within a few weeks from nitrous oxid mixtures. Other explosions have been reported, but we find no fatalities.

In one of the three anesthetic explosions mentioned in the *Journal of the American Medical Association* of March 14, 1936, the anesthetic gas mixture was chloroform-ether.

We hope that we have made it fairly clear that anesthetic gas mixture explosions do not depend upon the particular nature of the gas mixture, but that they may occur with any kind. We do not agree with Petersen, who states that, following the occurrence of a fatal explosion with an ethylene-oxygen mixture, he had discarded the use of ethylene and preferred induction of anesthesia with nitrous oxid and oxygen, and its maintenance by the ether open drop method. The risk of explosion may perhaps be lessened though not avoided by this means.

AVOIDANCE OF ANESTHETIC GAS EXPLOSIONS

Can we do anything to avoid anesthetic gas explosions? Several suggestions have been made. It is said that static electrical discharges are less liable to occur in a humid atmosphere and, therefore, that humidification of the operating rooms and annexes would be a preventive. Grounding the personnel and apparatus should be an effective means of preventing the accumulation of static charges. Both these suggestions seem to be good, but their complete carrying out would be very expensive for most large hospitals. Perhaps some modification could be made.

Although, as we stated at the beginning of this paper, the explosive risk in anesthesia is in reality a very slight one in comparison with other risks which are daily taken, yet it is a real risk and whatever can be done to eliminate it should be done. Certainly it will not be eliminated by outlawing any particular gas mixture. We think that the subject is one eminently worthy of being seriously investigated by a joint committee of surgeons, anesthetists, and hospital authorities, and the whole matter thoroughly digested.

There is one matter which might help to eliminate explosions. Williams[5] has pointed out, in speaking of ethylene explosions, that the majority of them have occurred at or near the end of the operative procedure. This was quite probably a result of the common practice of washing out the patient's lungs with a mixture of oxygen and carbon dioxid. Passing a rich oxygen mixture through the rebreathing bag and tube renders the whole apparatus and the patient highly explosive.

Could not this washing out of the patient's lungs be deferred until after he has left the operating room—when the patient has been returned to bed, for instance?

SUMMARY

The advantages of inhalation surgical anesthesia are discussed, and particular attention called to cyclopropane.

A recent anesthetic fatality with cyclopropane-oxygen anesthesia is mentioned, and it is shown that explosibility is a property common to all commonly used anesthetic gas mixtures.

The main factors responsible for anesthetic gas mixtures explosions are discussed. It is shown that sparks from electric static charges in operating rooms are mainly concerned in the causation of explosions of gas mixtures.

Literature is cited to show that explosions occur with all kinds of anesthetic gas mixtures commonly used.

Suggestions are given for the possible elimination or diminution of the explosive hazard in surgical inhalation anesthesia.

1930 Wilshire Boulevard.

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DISCUSSION

William W. Hutchinson, M.D. (1930 Wilshire Boulevard, Los Angeles).—I should like to emphasize a few points brought out in the paper. Hospitals do, and justly should, eliminate the grosser causes of ignition of explosive mixtures during anesthesia, such as open flame, electrical apparatus, etc., but when it comes to the elimination of the indefinite and little-understood static spark a far more difficult problem is presented.

It is known that static charges build upon nonconducting materials, and that a difference in potential between objects will cause a discharge with the possibility of a spark. It is also known that a discharge may be made from a nonconducting surface at one point, and that a static charge will remain on the surface at a very short distance from the site of discharge. How to entirely eliminate the remote danger of this form of ignition must be further investigated.

I have never been able to understand the inconsistencies of hospitals in eliminating the more valuable gases, such as cyclopropane and ethylene (often unjustly accused), and still allowing other mixtures, fully as explosive, or more so, than the eliminated preparations, to be used. If a hospital lays any claim to consistency, let it go all the way and eliminate all explosive mixtures and retain only the more dangerous, from the standpoint of morbidity, chloroform and the inefficient nitrous oxid—oxygen without ether.

A comparison might be made. Anesthetic explosions are so rare that they become headline news from Maine to California, while any Monday morning we can pick up a paper and read a small notice of from three to six or more killed in automobile accidents, 99 per cent of which are avoidable—so common that it is hardly news. The risk one assumes in taking an anesthetic with an explosive mixture used is infinitesimal as compared with taking a Sunday automobile ride.

❊

Harry J. Smith, M.D. (3115 Webster Street, Oakland).—Due to the scarcity of anesthetic explosions, the matter no doubt is given too little attention until an accident happens. Then the danger is very real. Many anesthetists have given thousands of anesthetics with many types of machines and have never seen an explosion, while the gas mixtures much of that time were of such concentration that the spark was all that was necessary to cause disaster.

Grounding of all sources of static electricity in an operating room does not seem to be the answer, unless, as Guedel says, it makes us explosion-minded rather than to give a false sense of security, so that we forget other safety measures.

If most accidents happen at the beginning and end of anesthesias, the washing out of tubes and bag with water would seem to be a fair safeguard against early difficulties. Emptying the bag and then blowing oxygen through the apparatus would soon dilute the gas, so there should be no dangerous concentration if the mask were not removed until the patient were well oxygenated.

The use of the closed circuit absorber rebreathing technique would seem to eliminate danger from static sparks originating in the machine, as after a few breaths the humidity is too high for development of static electricity. The authors' paper brings home to us the ever present danger to patient and the operating-room personnel, and we concur in their statement that the subject should be investigated by proper research, to the end that such accidents may be eliminated.

❊

Charles F. McCuskey, M.D. (3435 Amesbury Road, Los Angeles).—The authors state, "A surgeon cannot divest himself of the responsibility for everything connected with the surgical operation, and of the method of inducing and maintaining the anesthesia." Since each patient presents his own particular problem, the selection of the anesthetic agent and method should receive the same care and consideration as the type of operation contemplated. It is no more logical to attempt to cure all surgical conditions by one type of operation than to attempt to use the same type of anesthesia on every patient.

Postoperative pulmonary complications, infections, and embolism, are responsible for many surgical deaths. Quite frequently the anesthetic technique used is responsible for these complications. Unless the patient dies on the table they are accepted by the public and most of the medical profession as a matter of course. In reality these deaths are often due to poor judgment in the selection of the type of anesthetic used or to faulty technique in its administration. Ether is commonly referred to as the safest anesthetic agent, and the adherence to this old fallacy is today responsible for many preventable anesthetic deaths.

It is true that the administration of gas mixtures with oxygen and ether has a certain explosive risk, and that occasionally unavoidable accidents will happen. It is also true that many patients may be operated upon and cured while using gas mixtures with or without ether that would not survive an open-drop ether anesthetic. The explosion hazard is one that should always be kept in mind and all possible precautions taken, but we should not develop a phobia on the subject and thereby cause a higher mortality than if the explosion hazard was completely ignored.

PITUITARY DWARFS: THEIR GROWTH AND TREATMENT*

OBSERVATIONS ON TWELVE CASES FOR PERIODS OF ONE TO EIGHT YEARS

By Leona M. Bayer, M.D.
AND
H. Gray, M.D.
San Francisco

Discussion *by E. Kost Shelton, M.D., Santa Barbara; W. Palmer Lucas, M.D., San Francisco; William A. Reilly, M.D., San Francisco.*

"THIS child is a pituitary dwarf. Shall we give him growth hormone?"

The effectiveness of growth hormone in animals has been amply demonstrated. The potency of Evans's original alkaline extract for human use was already illustrated in the very first case, as reported both by Engelbach,[2] in 1932, and later by Shelton.[7] But the practical value of treatment with the commercially available products is still not established.[8] Nor, in spite of some thirty-six protocols published even by May, 1936, is there a clear answer to the questions of what preparation, what dosage, how long shall the treatment periods be?

SCOPE OF THIS PAPER

This paper is an analysis of the results of treatment in five dwarfs, with control observation on seven other dwarfs and one normal girl. Results vary from "good" to "bad." But it is hoped that the method of assessment used, namely, that of relative growth rates, is a sufficiently useful tool to permit somewhat more definite conclusions than heretofore with regard to individual treatment episodes. With such a tool, the clinician should be able to judge the results of treatment periods as short as three months, and to decide as he goes whether it is worth while to continue at all, to alter the dosage, or to make other changes in his therapeutic program.

CLINICAL MATERIAL

The twelve pituitary dwarfs are all those coming through the Endocrine Clinic since 1929, on whom we have our own stature observations for periods of longer than one year. Diagnostic details are summarized in Table 1. Each line represents a single cross section of a case, usually giving the status at the beginning of treatment with either thyroid or growth hormone, but occasionally taken arbitrarily at the time when there happened to be the most complete comparative data. In addition to the tabulated facts, there were essentially normal urines and blood counts and negative Wassermanns for each individual. It is important to observe that ten of the twelve children were of definitely inferior mentality, and that five had other stigmata of constitutional inferiority. The photographs of the five children who received growth hormone are shown in Figures 1 and 2.

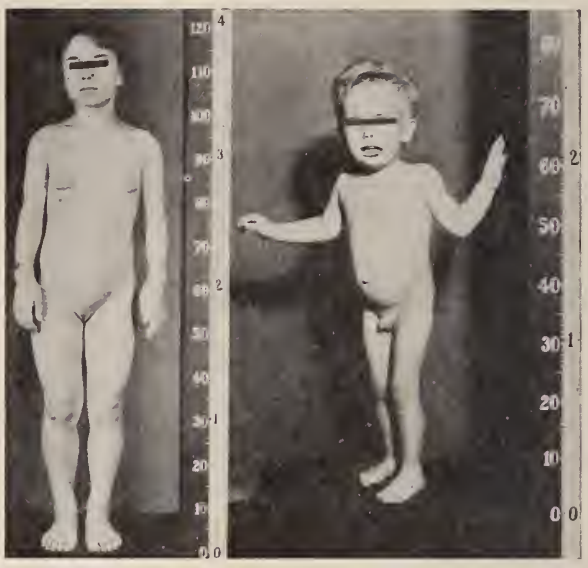

Fig. 1.—D. D. and R. R., dwarfs receiving growth hormone.

TREATMENT

The first prescription was always a nutritionally adequate diet with the exhibition of vitamin concentrates as indicated. Other medication is shown in the charts.

"Thyroid" means thyroid (Armour) by mouth, starting with 0.06 grams daily and raising to tolerance, the eventual dose being usually 0.06 or 0.13 grams.

"Growth hormone" means either Antuitrin G (Parke Davis) or Anterior Pituitary Growth Extract (Squibb); strength, ten rat units per cubic centimeter; dosage, three cubic centimeters three times per week. Treatment periods with growth hormone were usually three months, although a few are longer, as can be seen on the charts. Injections were intramuscular into the deltoid or gluteal, or subcutaneous in the intrascapular space.

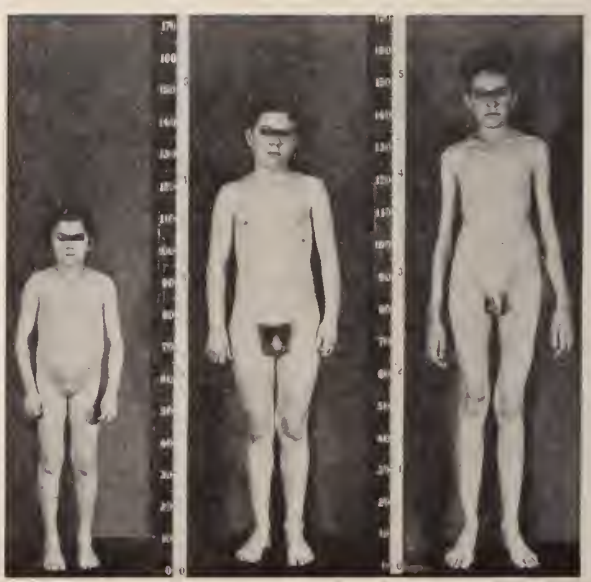

Fig. 2.—G. F., H. Z., and J. M., dwarfs receiving growth hormone.

* From the Stanford University School of Medicine, aided by the Rockefeller Fluid Research Fund.

Read before the Pediatric Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.

TABLE 1.—*Observations on Twelve Dwarfs: Developmental Status*

Age = Years at nearest birthday. BMR = Boothby Sandiford Standard through age 16, Du Bois (D) for others. n = normal. — = no data

Name	Sex	Birth Date	Age	Height (Centimeters)	Weight (K)	Metabolism		Bone Age (Years)	IQ (Per Cent)	Sex Status	Sella	Other Diagnoses
						Cals. Per Hour	BMR (Per Cent)					
Growth Hormone												
D. D.	F	Jan. 4, 1924	12	123.2	30.4	52.4	+22	11.5	Bright	n	n	{Madelung deformity
R. R.	M	Apr. 28, 1934	2	77.5	8.6	—	—	3 months	18 months	n	Small	
G. F.	F	Nov. 21, 1923	12	114.1	19.5	39.7	+14	9.5	62	Retard	n	
H. Z.	M	Sept. 4, 1918	17	147.0	44.0	70.6	+26D	15	101	n	n	{Diabetes mellitus
J. M.	M	Apr. 27, 1917	19	163.5	40.8	55.3	— 3D	14.4	78	Retard	n	
No Growth Hormone												
J. C.	M	Feb. 4, 1926	11	127.2	22.7	—	—	7	51	n	n	
L. E.	M	Jun. 9, 1929	7	100.2	15.9	33.9	+ 5	5.3	83	n	n	Web toes
S. I.	M	Jun. 25, 1924	13	119.8	27.2	46.9	+ 7	9.5		n	Small	
F. K.	M	Apr. 10, 1926	6	93.5	12.2	—	—	4	62	{Undesc. testes	—	{Cong. amp. left leg
E. N.	M	Jan. 21, 1927	8	111.5	17.2	35.2	— 6	6	75	Retard	n	
A. P.	M	Nov. 14, 1912	19	151.0	45.9	43.0	—24D	15	85	Retard	Expand	Pit. tumor
E. W.	M	Aug. 17, 1932	5	96.0	13.2	—	—	2 to 4	58	n	n	

The generosity of the two companies in donating their material for this study is gratefully acknowledged.

A further word may be said concerning the dosage, and the length of treatment and of control periods. From a review of the literature, the commonest dose seemed to be about ten cubic centimeters per week. Among the cases showing better results, several had received much larger dosage on a daily schedule, but there was not, on the whole, a close relation between amount of extract and degree of response. And there were good results reported on programs similar to the one adopted here.[6,9]

As to the three-month period, although it is too short for significant results concerning the size of the patient, it should be long enough for evaluation. Both Shelton[7] and Turner[9] record the impression that response is best in the first months, and the brilliant results in Reichert's[5] puppy were achieved in two and one-half months. In this latter instance, the dosage was proportionately much larger than that given in any human case so far published.

An adequate preceding control period is a prerequisite to the assessment of such short term treatment intervals. A desirable minimum is a series of height observations taken at least every three months for a year. Such data may be brought from reliable sources by the patient, but is always more satisfactory if collected by the physician himself.

RESULTS

Analysis of growth may be done in many different ways; the methods which we have followed are as follows:

I. *Absolute.*—The stature has been plotted against age and compared with the curve of growth for normal children, as in Figure 3.

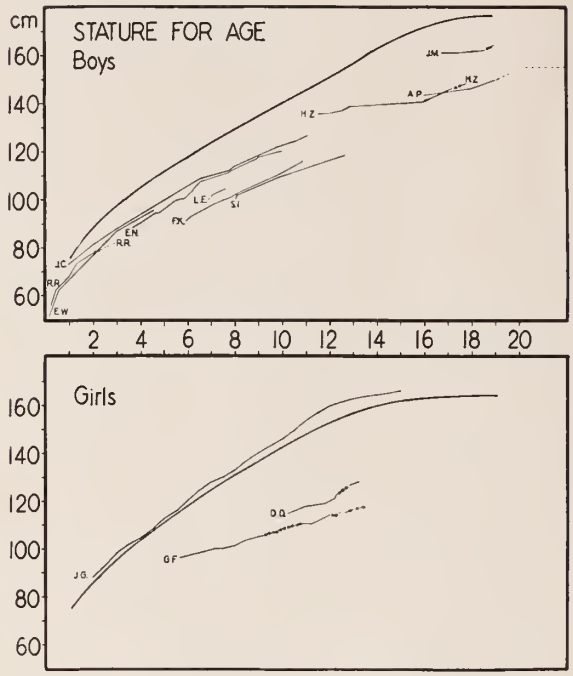

Fig. 3.

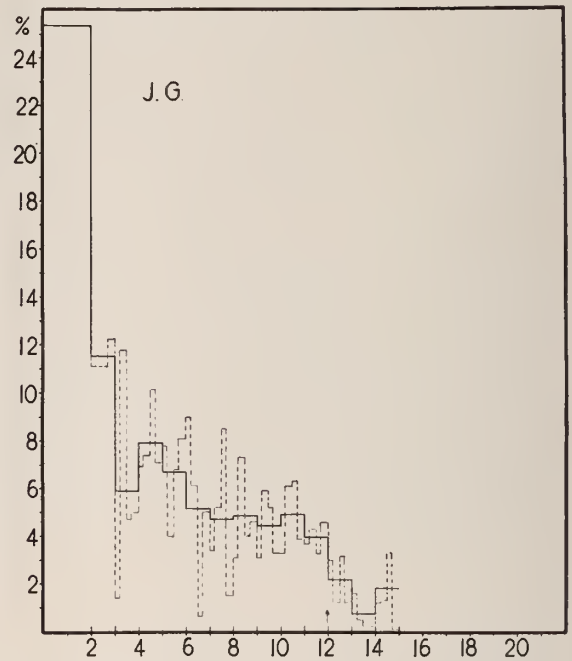

Fig. 4.

Fig. 3.—Absolute growth curves; twelve pituitary dwarfs, one normal girl. The heavy dots indicate periods of growth hormone treatment; dashes indicate thyroid; dot and dash indicate simultaneous use of the two. The horizontal scale marks the years.

Fig. 4.—J. G. Normal, to illustrate method of relative growth curves. Heavy line indicates values pooled into one-year periods; broken line indicates values for three-month intervals. The arrow marks the menarche.

The normal curves are taken from Gray and Ayres.[4] The growth of all twelve cases is plotted. In addition, the curve of a normal girl, J. G., is shown on the girls' graph, where it happens to lie above the mean. In the dwarfs, seven periods of growth hormone administration are signaled by the large dots. We draw the following conclusions from the figure:

1. Even in control periods, curves show sudden and marked changes in inclination.

2. In general, however, it is possible to judge by the slant of the curves in relation to the normal, that the tendency is for definitely dwarfed children to become progressively more retarded in height.

3. Although the significance of treatment periods might have been clarified by choosing a more expanded time scale, still it is apparent that by this method it is difficult to contrast a short treatment period with control fluctuations.

This dilemma of the difficulty of assessing results is, of course, mentioned by every author on the subject of growth. We have presented the material in this way, however, both as the simplest method of giving the data on the untreated cases, and as a basis of orientation for the method of relative growth rates, which is the subject of the remaining charts.

II. *Relative.*—In order to draw these charts, we have adopted a method used by Brody[1] and by Fisher[3] in various studies on growth. We have taken the increase in centimeters during the period, divided by the average stature (inasmuch as a gain of two centimeters presumably has more significance for a child who is short than for a child who is tall) and divided by the length of the period of observation expressed as a decimal fraction of a year. This gives us the relative growth rate per annum in per cent of stature. In calculating it the simplest formula is:

$$\frac{\text{S at end} - \text{S at beg.}}{\text{Average S}} \div \text{period as decimal part of year.}$$

That is, if a child grew from 99 centimeters to 101 centimeters in three months, the rate would be

$$\frac{101-99}{100} \times \frac{1}{0.25} = \frac{2}{25} = 8 \text{ per cent per year.}$$

It is slightly more accurate, however, to use the method of logarithms to the base *e* as illustrated by Fisher.

INTERPRETATION OF THE GROWTH CURVE

The kind of curve which is given by the growth of a normal child is illustrated in Figure 4. The heavy line represents the results when values are pooled for one-year periods; with the exception of the first two years, which are pooled together in order to make the chart vertically more compact. (The normal rate is around 50 per cent for the first year.) The broken line represents the type of curve which results when shorter periods are plotted—in this instance, three-month periods. For our purposes, it is necessary to make only the following remarks:

1. Periods as short as three months show variations in rate as great as 11 per cent between adjoining intervals.

2. Even so, there is shown, in both the coarse and the fine curve, a confirmation of the known tendency of the growth rate to fall from birth to adolescence, and to show another spurt around the menarche. This particular curve shows an additional four-year spurt.

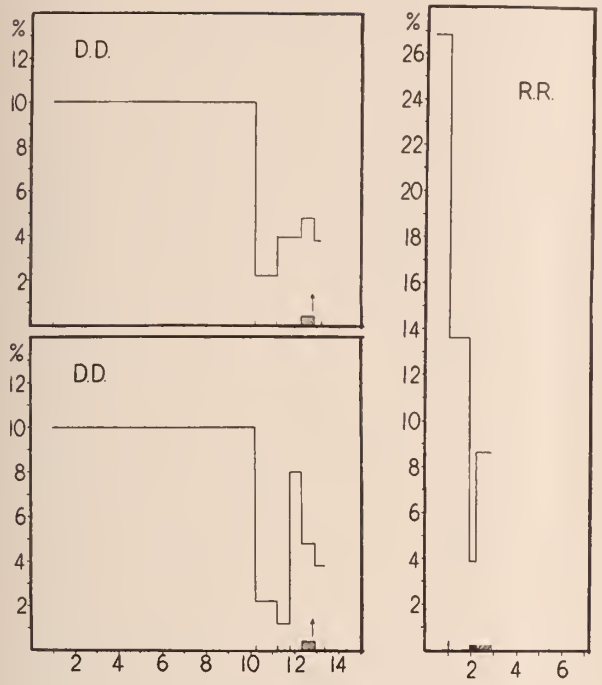

Fig. 5.

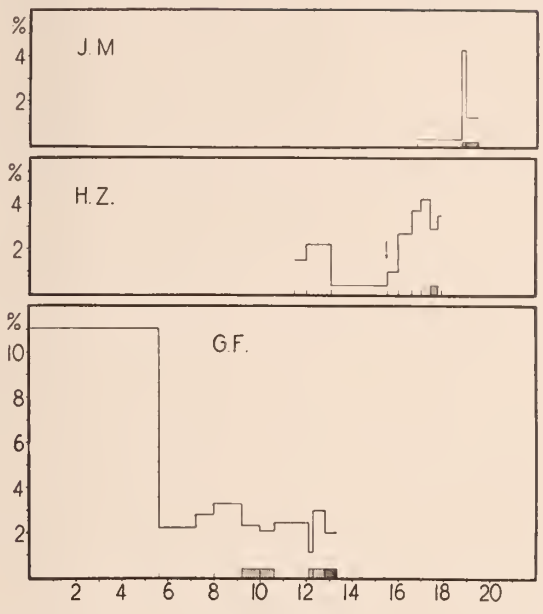

Fig. 6.

Fig. 5.—D. D. and R. R. Dwarfs, relative growth curves. Diagonals down to the right indicate growth hormone; down to the left thyroid: cross hatching, both. For D. D. the data are charted twice to show the effect of differences in pooling of time periods. The arrow marks the menarche.

Fig. 6.—G. F., H. Z., and J. M. Dwarfs, relative growth curves. Diagonals down to the right indicate growth hormone; down to the left, thyroid; cross hatching, both. The arrow in the chart of H. Z. indicates the beginning of improved diabetic control.

3. One practical conclusion is that, if one wishes to use such a chart for the evaluation of three-month treatment periods, one may demand that the treatment period show a peak which is better than, or as good as, a normal variation. But even if one does not demand this conservative criterion, one must at least view all favorable fluctuations with reserve.

COMMENTS ON THE GRAPHS

For the purposes of the remaining graphs, we pooled the observations for long control periods into intervals of about one year until we came close to the treatment period. Then we made our control intervals of the same approximate length as the treatment interval.

The effect of differences in pooling is illustrated in Figure 5 (D. D., cf. Figure 1). In the top chart, when the whole preceding year is smoothed, the treatment period shows a peak. When the preceding year is broken up into its halves as below, however, a great growth spurt—presumably the normal adolescent spurt—is shown actually to precede the giving of growth hormone, the growth hormone period itself becoming only a step down to normal. In this case, therefore, the interpretation appears to us equivocal. One can only say that the growth hormone period coincided with a time of greater growth than the subsequent control period, but one cannot conclude that the acceleration was actually due to the extract.

Fortunately, the other graphs are less controversial. Figure 5 also shows the results on R. R. (cf. Figure 1). Here the effect of the simultaneous administration of thyroid and growth hormone coincided with a retardation of growth rate below that in either the preceding control period or the subsequent period with thyroid alone.

Figure 6 pictures three separate cases. The lower chart, G. F. (cf. Figure 2), is the record of our longest-followed child, who has had three periods of extract administration, the first one extending over about one and one-half years, and the final one being a period when thyroid was given simultaneously. This chart, like the last, gives the recurrent impression of a retardation of growth during each extract period.

H. Z. (cf. Figure 2) is a young diabetic followed since his eleventh year. The arrow marks the beginning of clinical control of his diabetes, and to that, presumably, is due the ensuing growth spurt. The growth hormone period again coincides with a period of definitely depressed growth rate.

The record of J. M. (cf. Figure 2) is the one clear-cut instance in which the growth hormone period showed an *acceleration* of growth, both as compared with the preceding control and the subsequent thyroid intervals. This is encouraging. It must be recorded, however, that there is a joker here: the boy's brother is said to have grown four inches in his nineteenth year.

SUMMARY

1. The absolute growth curves of twelve pituitary dwarfs and one normal child have been presented. From them it can be seen that although growth obviously fluctuates, dwarfs in general tend to fall progressively further behind in height.

2. A method of relative growth increments has been shown to demonstrate the known facts with regard to normal growth, and to sharpen the usual

fluctuations so that changes in rates for short periods of observation can be nicely reflected. The growth records of a normal girl and of the five treated pituitary dwarfs have been charted by this method.

3. Of seven periods of growth hormone administration, five coincided with periods of retarded growth, one with a period of growth accelerated relative to the subsequent control interval, and one with a period of striking acceleration relative to both preceding and subsequent periods.

Until our material is followed for another year or so, the data does not seem extensive enough to warrant further analysis as to what factors were responsible for good and poor results.

4. By using the method of relative-growth rates, the effect of the administration of growth hormone for periods as short as three months can be tentatively assessed. On the basis of such a trial period, it can be decided for the particular child and treatment schedule, whether or no, and how it is advisable to continue. The desirable prerequisite for judgment is an adequate control period of at least one year.

Stanford University School of Medicine.

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DISCUSSION

E. Kost Shelton, M.D. (34 West Micheltorena Street, Santa Barbara).—It appears to me that the title of this paper is a bit misleading, since the chief contribution lies not so much in the diagnosis and treatment of pituitary dwarfism as it does in the assessment of growth, both normal and abnormal, when problems of therapy are encountered.

"Pituitary dwarfism" is rather a loose term in the endocrine nomenclature of today. No doubt the pituitary enters into many, perhaps all of the disturbances of growth, yet in quite a few instances this structure does not appear to be primarily at fault. Since the diagnosis is difficult and is frequently only verified or refuted (except at autopsy) by the specific response to pituitary substitution, the concomitant administration of thyroid, high vitamin, calcium, etc., may be (and is) good clinical practice, but does not lend itself to interpretation.

Be that as it may, this criticism in no way detracts from the excellency of the paper. The assessment of growth, as a result of therapy, is an important clinical problem. Any method which more clearly and accurately measures the rate of growth for brief periods, and takes into consideration the normal variations of the same, is a distinct contribution.

The main difficulty with this and any other method, as I see it, lies in the measurement of the child. A number of observers frequently get variations in height ranging up to 2 centimeters at a single sitting. Even the same observer, no matter how carefully he may operate, can easily get a variation of 1.5 centimeter on the same day. Since the normal increment is frequently no greater than the range of error, in periods as short as three months, the findings would be difficult of interpretation. This would be particularly true in the hands of inexperienced or careless observers, whom the authors have attempted to help.

The method which we have employed, namely, that of photographing the patient every three months against a constant background of six-inch squares, with the camera in a fixed position, while effective and accurate, is prohibitive for most, and does not lend itself to the novice.

After all is said and done, however, Doctors Bayer and Gray are to be congratulated on the ingenious, yet simple method which they have devised for the assessment of growth. It will be interesting to combine their method with that which we have worked out in order to evaluate the relative efficacy of each.

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W. Palmer Lucas, M.D. (490 Post Street, San Francisco).—The observations on twelve cases of pituitary dwarfs are interesting, and Doctors Bayer and Gray have called attention to the importance of accurately following their growth curves during the period of observation. Their method of demonstrating the growth increment in comparison with normal growth curves is a very important point and one usually disregarded by those reporting on the effect of growth hormone administration in such cases. If more observers would use this method of relative growth rates, checking the effect of the administration of the growth hormone over long periods, we would get more accurate knowledge of its effectiveness, especially if the prerequisite of establishing any judgment is based on an adequate control period of a year as they suggest.

It is refreshing to find workers in this field who are willing to admit a conservative point of view in regard to their results. We would advance further in the knowledge of growth hormones if more observers would adopt this most careful method of graphically checking results at given periods. Periods certainly should not be any shorter than three months, and the total period of observation should at least cover a period of several years before one becomes too enthusiastic over the results.

❦

William A. Reilly, M.D. (384 Post Street, San Francisco).—When carefully studied the graphs of relative growth provide as nearly an accurate assessment of the efficacy of the present-day growth hormone as can be made. For such observations, Doctors Bayer and Gray should be commended.

Clinicians confronted with treatment of pituitary dwarfism up to the last few years had looked toward growth hormone with great expectancy. From reading reports, conversing with others who used growth hormone and having used it myself, the feeling is justified that growth hormone does not accomplish as much in the human species as it has in the animal kingdom. Obviously, proportionately large doses for humans, preferably given frequently, and perhaps by other than subcutaneous routes, are only a few of the more important reasons why it is not feasible at present. The lack of a sufficient supply, foreign protein and inorganic salt reactions, and prohibitive costs, are the fundamental hindrances to a widespread clinical test. Yet there are a few children who have had satisfactory growth. However, one might look forward to the time when this replacement therapy will be used more successfully.

Briefly, I have had the following experience with the use of growth hormone. Eight children were given hormone* to stimulate growth of their dwarfed skeletons. Our observations, carried on over a period of three to five months,

* E. R. Squibb & Company, and Wilson & Company, supplied the growth hormone for this study.

failed to show any change in the rate of growth. The material was nontoxic; 1.0 to 5.0 cubic centimeters were given intramuscularly or subcutaneously every day, with neither local nor general reactions. Diabetes and reduction in the blood nonprotein nitrogen did not occur, as in Cushing and Teel's experimental animals. There were no untoward effects on other systems. The growth results of Engelbach and Tell, and Shelton and Evans, who used different types of material, could not be corroborated. However, it is possible that better results might have been obtained had a larger injection (5 to 10 cubic centimeters) been given daily.

INTRA- AND POSTPARTUM HEMORRHAGE*

By Clarence A. DePuy, M.D.
Oakland

Discussion *by Ludwig A. Emge, M.D., San Francisco; Clarence W. Page, M.D., Berkeley; T. F. Wier, M.D., San Diego.*

OF the tragedies that occur in medicine perhaps none are more terrifying than death caused by hemorrhage. Especially is this so when the individual happens to be a woman in the prime of life, who is rendering the supreme sacrifice bestowed to her sex in bringing into the world a new being. This sudden loss of life to the young mother is usually not expected, and what was anticipated to be a happy event turns out to be a great sorrow. The new-born infant will forever be deprived of a mother's love and guidance, and will be left to the tender mercies of relations and friends.

To the unfortunate physician who officiates at such an event our sympathy is extended; for, as you all know, these tragedies do not rest lightly upon his shoulders: a few more sleepless nights, a few more gray hairs, are his reward.

RECENT STUDIES OF MATERNAL DEATHS

During the past few years much attention has been given by various medical organizations and the government to the study of maternal deaths; cities, states, and societies have made detailed investigations to try to determine the cause and to fix the responsibility. Standard forms and charts have been prepared so that one community may be compared with another, and the surprising feature of these reports is the similarity of percentages obtained all over the United States.

In dealing in the causes of death in the last trimester of pregnancy (this, of course, eliminates the abortion cases), hemorrhage ranked second on the Pacific Coast.

In the Coast report of maternal mortality study in seven cities, made by the Pacific Coast Society of Obstetrics and Gynecology, hemorrhage accounted for 15 per cent of the deaths. In the San Francisco Bay Counties report made by the San Francisco Bay Counties Obstetrical Society, hemorrhage accounted for 13 per cent. In the maternal mortality report in fifteen states, made by the United States Department of Labor, hemorrhage accounted for 11 per cent of deaths. By far the greatest number of the deaths caused by hemorrhage was listed as postpartum hemorrhage. To illustrate: In the maternal mortality report of seven Pacific Coast cities for the years 1933 and 1934, there were eighty-eight deaths from hemorrhage, and in seventy instances it was the primary cause of death. In eighteen it was the contributory cause. Placenta previa occurred seven times. Premature separation of the placenta occurred eleven times. Fifty-two postpartum hemorrhages occurred, and in forty-five cases it was the direct cause of death. Fifty per cent were in their first or second pregnancies, and fifty per cent had normal pregnancies. In twenty-four cases the hemorrhage followed spontaneous delivery. Of the remainder, nine had cesarean sections, two had forceps deliveries after manual dilation of the cervix, three forceps deliveries only. Fourteen had labor induced artificially. Of the total, fourteen were associated with delivery of the placenta, thirteen had uterine packing, and only eleven cases had transfusions.

Twenty-four of the fifty-two postpartum hemorrhages were considered preventable by the attending physicians; eighteen were listed as due to errors in judgment; two attendants were judged incompetent; three were charged with failure to repair deep lacerations of the cervix, and one to an unrecognized rupture of the uterus.

Twenty-eight deaths in this section were deemed not preventable. Fifty-four per cent followed operative deliveries.

Thirty-six autopsies were performed in these patients: One showed an unrecognized rupture of the uterus; two showed retained portions of placenta; the others showed merely the resultant anemia.

FREQUENCY

The textbooks on obstetrics have not been able to give any accurate estimate as to the frequency of these complications, and it is only by the careful study of all maternal deaths that we can determine the frequency.

Shears says the frequency with which a man meets this complication is a fairly good index of his ability as an accoucheur, but adds, however, that there are exceptions to this rule.

CLASSIFICATION

Hemorrhages occurring during labor are divided into three forms. Antipartum, intrapartum, and postpartum. It is to the latter two forms of hemorrhage that this discussion applied. Hemorrhages may also be classified according to causes into two varieties: traumatic and atonic. Traumatic hemorrhage is the term applied to the hemorrhage due to laceration of any part of the genital tract. It may be further subdivided into external traumatic and internal traumatic. Atonic hemorrhage is the term applied to hemorrhage due to failure of the uterine muscle to contract.

A moderate blood loss, estimated to be from 100 to 300 cubic centimeters, is a necessary part of every labor. When the blood loss becomes excessive, then the term "intrapartum or postpartum" hemorrhage is applied.

*Read before the Obstetrics and Gynecology Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2-6, 1937.

TRAUMATIC HEMORRHAGE

Let us first consider traumatic hemorrhage. Broadly speaking, bleeding with a hard uterus usually comes from laceration. After forceps or other operations, lacerations are to be looked for and they will be found in the operative field. Lacerations of the genital tract are more frequently the cause of hemorrhage than is generally supposed. These lacerations may occur at the pelvic outlet in the lateral vaginal walls, vaginal fornix, the cervix or the lower uterine segment.

The principal difficulty in the treatment of these injuries seems to be in the diagnosis, and this should easily be made on careful inspection instituted early and before the patient has lost 1,000 cubic centimeters of blood or more.

Tears of the outlet are easily seen. Tears of the vaginal fornix and cervix can be seen with the aid of vaginal retractor or speculum. The patient should be placed in the lithotomy position, properly draped to avoid infection, and then the speculi inserted, the vagina wiped free of all blood-clots, the cervix grasped with a sponge forceps and brought to the vaginal orifice where a careful inspection can be made and the vaginal vaults explored. When lacerations are found they can usually be sutured without difficulty and the bleeding controlled. I want to emphasize again the importance of diagnosis.

ATONIC HEMORRHAGE

With chloroform anesthesia, and before the days of pituitrin and better standardized preparations of ergot, this was a real factor to be dealt with, and even today this form of hemorrhage is still responsible for quite a number of deaths.

There are three factors which normally control bleeding in the uterus:

1. The contractions of the uterine muscular fibers.
2. The retraction of the uterine muscle fiber.
3. The clotting which occurs in the vessels.

The contraction of the muscular coat of the uterus brings about a temporary cessation of hemorrhage during their occurrence. Each fiber diminishes in length and as a result the whole organ becomes a firm, hard mass, and its supplying arteries are compressed as soon as the contraction passes off, and it only lasts a very short time; the uterine fibers lengthen; the compression of the vessels ceases and hemorrhage would begin again if another factor quite distinct from the contraction, but in a manner dependent upon it, did not also occur. This factor, which is the most potent agent, is causing the permanent cessation of hemorrhage, is the retraction of the uterine muscle fibers.

Retraction brings about a reduction in the size of the uterus sufficient to cause a permanent kinking and compression of the placenta vessels. It is, therefore, the process to which the final and permanent checking of hemorrhage is due.

The clotting which occurs in the vessels is so unimportant a factor in checking hemorrhage that it may almost be neglected. It may be the direct cause of the cessation of hemorrhage in some small vessels, but it is probably more correct to consider it a result rather than a cause of the cessation of hemorrhage.

These are the normal agencies by which hemorrhage is prevented, and in knowing them, we can better understand the conditions which favor hemorrhage, conditions which prevent the due retraction of the uterine muscle fibers either directly as a retained placenta, or indirectly by preventing contraction from taking place, like degeneration of the fibers from pathological conditions as in the toxemias of pregnancy. Abnormal adherence of the placenta to the uterine wall, with partial separation, causes the worst form of uterine hemorrhage.

TREATMENT

Treatment is both prophylactic and curative. Ideal obstetrics demands that no woman should lose enough blood to give rise to symptoms of anemia. Under the heading of prophylactic treatment, I would like to suggest to all health authorities who are granted the privilege of issuing permits for operating maternity departments that they make a careful inspection of delivery rooms, labor rooms, nurseries, and the department in general, to see that they are properly equipped for handling obstetrical emergencies, and especially accidents that happen during labor. The help needed must be rendered at once and does not permit of delay, and especially is this so in the hemorrhage cases.

Every delivery room should have proper instruments, such as vaginal retractors and speculi, and emergency kits, sterilized and ready for use. The head of the obstetrical department or other responsible persons should make routine inspection to see these needs are provided for.

PROPHYLACTIC TREATMENT

Prophylactic treatment consists in the proper management of pregnancy to eliminate and avoid the toxemias which predispose to bleeding, the proper management of labor to avoid exhaustion, and proper management in particular of the third stage of labor.

A point I would like to emphasize is the avoidance of premature attempts to express the placenta from the uterus before separation has taken place. The retroplacenta clot is expressed and this retards proper separation, and makes the third stage more prolonged and difficult. The use of a marker on the cord, applied when the cord is severed, may give some information when the placenta has passed into the lower uterine segment or vagina.

The use of pituitrin immediately following the second stage of labor has cut the usual blood loss in half and greatly reduced the time of the third stage.

CURATIVE TREATMENT

The curative treatment is most satisfactory if it is intelligently carried out. It is essential to have a definite plan.

1. If hemorrhage starts after the birth of the child, and it is not checked by massage of the fundus, ascertain whether the placenta is in the uterus or vagina.

2. If the placenta is still in the fundus, express it by the Crede method, and if in the vagina remove it manually, then give ergotocin.

The discovery of a new preparation of ergot has eliminated most of the uncertainty which has characterized the use of ergot. A new principle has been isolated in chemically pure form, and this substance has been shown to possess all the desirable oxytocic activity of ergot itself. This new preparation has been named ergotocin, and has been placed on the market in tablet and ampoule form under the trade name of ergotrate. Given orally or intramuscularly, it acts in eight to twelve minutes; the intravenous injections within fifteen seconds. This causes a tetany of the uterine muscular fiber, followed by slight intermittent contraction, the end-result is a firm persistent contraction of the uterus lasting for a number of hours and a contraction of the type necessary to control uterine hemorrhage. Its use has not been recommended during the third stage of labor as a routine procedure, but where an oxytocic drug is indicated it might be used as safely and more effectively than any other known oxytocic. The dose in ampoule form for intravenous use is 1/320 grain, repeated when necessary.

3. If this fails to check the bleeding, give a hot intra-uterine douche of one-half per cent acetic acid solution at a temperature of 115 degrees Fahrenheit.

4. If bleeding still continues, compress the fundus firmly between one hand in the uterus and the other hand on the abdominal wall, and if hemorrhage resists the above treatment.

5. The uterovaginal canal must be firmly packed with gauze. If properly done, this is a method as certain as anything can be in its immediate action.

If in spite of all the above treatment hemorrhage still persists, the only thing to do is to apply a Momburg belt or tourniquet.

6. Treat the anemia. Keep the patient quiet with morphin, apply external heat. Give intravenous solutions, and arrange for a transfusion as soon as possible. I wish to call your attention again to the Pacific Coast Society report of eighty-eight women that died of hemorrhage, only eleven of whom had transfusions.

A point I would also like to emphasize in the treatment of these hemorrhage cases is the extra care that should be used in avoiding infection. These cases are very prone to develop puerperal sepsis due to the lack of resistance from the loss of large amounts of blood.

SUMMARY

To summarize, I would like to remind you of the frequency of these hemorrhage cases. Hundreds of women bleed to death of postpartum hemorrhage every year. Large percentages of these cases are deemed preventable by the physician. Only a few have transfusions. I would like to stress the importance of careful examination for tears and lacerations as a cause of bleeding, advise the use of a new preparation of ergot to stimulate better contraction of the uterus, and stress the importance of good technique to avoid sepsis.

230 Grand Avenue.

DISCUSSION

Ludwig A. Emge, M.D. (Stanford University School of Medicine, San Francisco).—Hemorrhage in pregnancy is always a formidable problem, regardless of the period at which it occurs. It is particularly dangerous when it takes place during the third stage of labor or during the first twenty-four hours after delivery. Doctor DePuy has so ably discussed the salient points of the subject that nothing of importance can be added. However, certain points cannot be stressed too often, and one of these is preparedness for emergencies. Whenever there is an intrapartum hemorrhage, no matter how slight, extensive preparations for an emergency are in order. These should include the typing of blood, the provision of a donor for transfusion, preparation for immediate surgical intervention, and the setting up of various facilities for the resuscitation and incubation of premature and debilitated infants. As soon as a state of emergency has been realized, every diagnostic aid should be utilized to determine the exact nature of the hemorrhage. Should the diagnosis point either to a premature separation of the placenta or an obstructive placenta previa, prompt intervention is in order, for the lives of both mother and child are at stake. This is one time when "intelligent interference" must take precedence over "masterful inactivity." Speedy decision and quick methods of attack are necessary for the successful treatment of any hemorrhage, particularly the late intrapartum and early postpartum hemorrhages. We all realize that the sound of a sudden rush of blood is terrifying, but this is no time for fear. Courage, quick thinking, and resourcefulness alone will stop the rapidly ebbing stream of life. The situation demands a thorough training and ample experience, and those who do not possess these prerequisites have no right to watch over the destinies of parturient women. I continue to be amazed at the lack of obstetrical conscience so often observed among practitioners, and the indifference on the part of the laity toward obstetrical qualifications. Every physician should read the reports of maternal mortality published by the San Francisco Bay Counties Obstetrical Society and the Pacific Coast Society of Obstetrics and Gynecology. They point very clearly that many obstetrical deaths are preventable. I have always been, and still am, of the opinion that a medical diploma and a state license do not give the moral right to take on the responsibility of an obstetrician any more than to practice major surgery, and the sooner this is realized by the profession the sooner will we take an important step toward the reduction of our maternal mortality. Doctor DePuy has condensed a great deal of thought, analysis, and advice for the management of a difficult condition into a few paragraphs. This very timely résumé permits reading between the lines, and should serve as a valuable sign for a dangerous crossing of medical roads.

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Clarence W. Page, M.D. (2560 Bancroft Way, Berkeley).—Hemorrhage is second only to puerperal sepsis in the causes of maternal mortality, and too much emphasis can never be placed upon its prevention and treatment, which Dr. DePuy has so well summarized. There are a few points which may well be stressed.

Among the contributing factors in the causation of uterine atony during the third stage are prolonged labors, especially those occurring with the dystocia dystrophy syndrome, severe toxemias of pregnancy, overstretched uteri resulting from multiple pregnancies or hydramnios, or congenital malformations of the uterus, which may result in an interference with the normal contractility of the uterus. When any of these factors are suspected prior to delivery, a compatible donor should be on hand ready for transfusion if needed. The slightest delay in the administration of blood following hemorrhage may be of serious import. Solutions of glucose or gum-glucose may be given intravenously while awaiting the blood, although recent reports of unfavorable sequelae from the acacia have made us a little more cautious in its use.

It is important to measure accurately the amount of blood loss, and equally as important to correlate this amount with the original blood volume (*i. e.*, size of the patient), and the presence or absence of anemia existent before delivery. For the immediate treatment of hemorrhage which can-

not be controlled with intravenous ergonovine and fundal pressure (and this is uncommon), I have discontinued intra-uterine douches and rely on immediate tamponade with gauze, wrung as dry as possible from a 5 per cent solution of acetic acid. The immediate repair of cervical lacerations when bleeding is excessive is imperative. We advocate routine inspection of the cervix after delivery, and repair when indicated. There are now on the market several satisfactory specula, making this examination fairly simple.

It is important that equipment for examination and repair of the cervix and for tamponade be ready at hand, as delay is dangerous. We have often noted that severe hemorrhage causes the physician to become excited and interferes with his judgment as to procedures to be followed. For the guidance of both the physician and nurses, we have posted in the obstetrical quarters the procedures to be followed and the equipment that should be ready at hand under these circumstances.

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T. F. Wier, M.D. (911 Medico-Dental Building, San Diego).—Doctor DePuy has given us a good review of the causes of maternal hemorrhage and its treatments. May I add that, as long as the medical profession in general regard a pregnant woman as in a physiological condition, and leaves to that "physiology" or "nature" to complete its act, so long then we may expect a high maternal mortality rate in this country. I would like to see an effort by the medical profession directed to the education of the young physician in a more thorough understanding of the necessity of guarding well a gravid woman.

SIMPLE EYE TESTS IN A PEDIATRICIAN'S OFFICE: THEIR VALUE*

By Helen M. Johnson, M.D.
and
William Palmer Lucas, M.D.
San Francisco

Discussion *by George H. Kress, M.D., Los Angeles; George N. Hosford, M.D., San Francisco; Clifford Sweet, M.D., Oakland; A. Ray Irvine, M.D., Los Angeles.*

PHYSIOLOGISTS tell us that only four per cent of the population is emmetropic in both eyes. The proportion of those who are defective enough to require correction is estimated differently by various authorities who have studied the question, but there is universal agreement that the type of sensory impression received through the eyes has a profound effect on the mental as well as the physical outlook on life: the development of the personality as well as of the very character is affected by the eyesight. Innumerable so-called nervous symptoms, psychologic "twists," and undesirable personality traits are due to various eye conditions, and can only be alleviated by proper attention to the eyes. Many schools are now giving eye tests at the beginning of the school term, but the preschool child, by reason of his age, is neglected. How important it is, then, in this era of preventive medicine, for the physician—and the pediatrician in particular—to include in the physical examination of the child simple eye tests, both subjective and objective, in order to rule out visual defects which may be the causative factors in the development of an undesirable personality.

* Read before the Pediatric Section of the California Medical Association at the sixty-fifth annual session, Coronado, May 25-28, 1936.

COMMON CAUSES OF DEFECTIVE VISION

The child's ability to read a chart with ease may not mean that glasses are unnecessary. Many hyperopes are passed by, year after year, because they possess the ability to read the whole chart. The common causes of defective vision and a brief description of the symptoms and of the objective and subjective examination of the eyes as found practicable in a pediatrician's office will be reviewed.

The important defects may be classified as follows:

1. Anatomical variations in the shape and of the anteroposterior diameter of the eyeball cause (*a*) hyperopia; (*b*) myopia; (*c*) astigmatism.
2. Such muscle imbalances (heterophorias) as (*a*) esophoria; (*b*) exophoria; (*c*) hyperphoria.
3. Visible muscular deviations (heteropias) as (*a*) squint (internal strabismus) esotropia; (*b*) wall eyes (external strabismus) exotropia; (*c*) vertical deviation, hypertropia; (*d*) ocular torticolis.
4. Aniseikonia, a recently discovered condition in which there is a difference in the size and shape of the retinal images.

THE FAR-SIGHTED CHILD

At school the far-sighted child (simple hyperopic) reads the whole test chart with ease and is, therefore, frequently not included in the group which will be sent to the oculist for further examination. But this child often finds close work fatiguing because of the necessity for constant excessive contraction of the ciliary muscles; therefore he avoids reading and close work, and may be considered lazy, inattentive, and even stupid, in school. He reads for a short time and then becomes discouraged. He tends to become an extrovert, and to compensate for poor school work by an excessive interest in outdoor sports. Given an opportunity, he hunts well and can become an excellent shot. He usually does not complain of headache, although he has eyestrain which causes frowning and the development of wrinkles across his forehead. His hyperopia may tend to diminish as growth proceeds, or may remain substantially the same.

THE NEAR-SIGHTED CHILD

The myope, on the other hand, will read the letters on the Snellen chart fairly accurately to a certain point, and then will be unable to read further. He probably cannot distinguish the letters in a sign across the street. A tree appears to be a greet blot on the landscape, and he cannot distinguish the individual leaves. He tends to dislike most sports because he has found that he cannot cope on the playground with classmates who have better visual acuity. He cannot see the ball until it is a few feet from him, and he is, therefore, not chosen on the team. If left with uncorrected vision he tends to become an introvert; he feels that sports are a waste of time, and he does not develop the qualities of sportsmanship, the give and take, the ability to get along with his fellow men, which are needed for leadership in later life.

Reading is his greatest pleasure; it is easy for him to read, as the myopic eye needs to accommodate less than the normal eye, and so he has no eye fatigue. He tends to be a good student, and to become a round-shouldered book-worm type. His myopia is likely to increase as growth proceeds.

THE ASTIGMATIC CHILD

The astigmatic eye may be astigmatic only, but is more commonly combined with myopia or hyperopia. The visual acuity of the child who has astigmatism may vary from 20/20 to 20/200 or less. This depends on the amount of astigmatism present. He miscalls letters in a characteristic way; an E is likely to be called Z or B; P and F are confused. He may be a nervous, irritable child, whose physical examination reveals no cause for the nervousness; he may have a worried, strained or anxious expression with a continual frown. There may be congestion of the conjunctiva and lids, or there may be a chronic infection of the lids, which usually indicates a hyperopic astigmatism. There may be blinking in excess, especially after attending the movies. He is likely to complain of headaches, and be disinclined to read and study. He is frequently accused of inattention.

A condition of functional amblyopia which is due to spasm of the ciliary muscle is seen occasionally in nervous, high-strung children. This may cause an apparent pseudomyopia when emmetropia or hyperopia may actually be present. This rare condition is revealed only by careful refraction while the eye is under the influence of a cycloplegic. Opticians who must work without mydriatics invariably prescribe myopic lenses, which makes the condition worse.

MIXED DEFECTS

Hyperopia, myopia, and astigmatism may be present with or without muscle imbalance. Approximately 90 per cent of cases with visible deviations develop amblyopia (lessened vision) in the eye which deviates. The classical explanation for this is that it develops as a protective mechanism to obliterate the confusion that is introduced by double vision. Recent researches tend to cast some doubt on this, however. The other 10 per cent of cases are of the alternating type. They use either eye, suppress the image in the squinting eye, and do not develop amblyopia.

HYPERPHORIA

Hyperphoria, the condition in which the visual axis of one eye is directed above that of the other eye, is frequently overlooked. It is probably the most frequent cause of car-sickness. The oscillation of the eyes in the horizontal plane as a patient sits in a moving train and gazes out of the window, in some poorly understood way sets up a stimulation of the tenth nerve, probably by way of the dorsal longitudinal (?) bundle through its connection with the third, fourth, and sixth nerves. This stimulation produces nausea and at times actual vomiting. Such patients frequently suffer from headache, and are likely to find reading on moving vehicles difficult if not impossible. A clue to its existence may also be obtained from the fact that the child tilts his head toward the hyperphoric side. A history of reading with one eye covered is not uncommon. It is one condition which will cause a child to refuse to go to the movies. A compensatory scoliosis is not infrequent; where the condition is extreme an ocular torticolis may result.

ANISEIKONIA

Aniseikonia, which, as the name implies, is a difference in the size and shape of the retinal images, is too new a discovery to permit critical evaluation, but in the opinion of some competent authorities it may prove as fruitful as the elucidation of the nature of astigmatism. The existence of this condition might be suspected where visual symptoms persist in spite of careful examination with a mydriatic and careful studies of the extra-ocular muscle balance, which should include, if necessary, the patch test devised by Marlowe. Neither the apparatus for measuring aniseikonia nor the lenses necessary for its correction are available on the Pacific Coast at this time, but they may be available in the near future. Binocular vision is said to be impossible with an aniseikonia of more than 4 per cent, and with the present apparatus differences of 0.25 per cent can be detected.

TEST CHARTS

The Snellen chart is used in our tests for school children, and the illiterate E chart and the kindergarten object chart for preschool children. These charts are considered as precise as any visual acuity test, and they are sufficiently accurate and adaptable for clinical use. Only three to five minutes are consumed in doing a test which may mean a happier future for the child. Patients who read 20/20 or 20/15, but have no symptoms either obviously related to the eyes or otherwise, are at once classified as normal if they are doing well in school and show no tendency to avoid reading or other close work. This group is merely retested by having them read the chart at intervals of six months to a year. Those who read the entire chart, but have symptoms or signs of eyestrain, or are doing badly in school, or have undesirable traits of personality, are referred to an oculist. They may be either slightly astigmatic or markedly hyperopic. Those who show a marked difference in the visual acuity of the two eyes are, of course, referred to the oculist as a matter of routine, whether they present symptoms or not. With the older children the pin-hole disc is very useful. If it improves visual acuity, the difficulty is shown to be in the anterior segment of the eye, and probably due to refractive errors. If it does not improve the vision, there is probably either a fundus lesion, amblyopia, or something wrong with the optic nerve or its cortical connections. The importance of a simple eye test as part of the physical examination is shown by the following case histories.

REPORT OF CASES

Case 1.—Virginia K., five and one-half years old, was referred to us with an upper respiratory infection and enlarged tender cervical glands. Her temperature was

normal. An older sister had died of acute rheumatic fever the week before. Virginia had had measles six months previously, and since then her mother had noticed that the left eye turned in occasionally. She had become an extremely nervous and irritable child. Examination by the kindergarten chart revealed a visual acuity of 20/20, in the right eye, and 20/100 in the left. The oculist found two diopters of compound hyperopic astigmatism in the right eye and over four diopters in the left. Glasses were prescribed which gave symptomatic relief from the nervousness and other symptoms, and there was no tendency of the left eye to deviate while the correction was worn. A check of the eyes after five months showed improved vision in the amblyopic eye and, with the glasses on, her eyes were straight to the cover test.

Case 2.—Eleanor J., ten years old, had spastic paraplegia of the right arm and leg, which might account for her nervousness, easy fatiguability, and stuttering. She was doing poorly in school. The visual acuity by the Snellen chart was 20/30 in both eyes. Under a cycloplegic, the oculist found two diopters of compound hyperopic astigmatism against the rule. Glasses gave considerable relief from the nervousness, and a marked improvement in her school work was noted.

Case 3.—Thomas R., thirteen years old, complained of backache, fatigue, and frontal headache. Glasses prescribed by an optical company had contained a high astigmatic correction; the child refused to wear them. He read a good deal for pleasure, in spite of the headaches, but was doing poor work in school. Visual acuity, as tested by the Snellen chart, was 20/30 for both eyes. The oculist found over three diopters of simple hyperopia, but with no astigmatic correction.

Case 4.—Louis R., ten years old, had been under the care of an oculist for four years. His visual acuity was normal in each eye. He had the usual exanthema of childhood, but in a mild form and without untoward sequelae. He complained of itching and burning of the lids, which were relieved but little by any form of treatment, and they were finally ascribed to allergy, but without very good evidence, because he presented no other allergic phenomena. He disliked riding, even in an automobile, and was highly "nervous," and although his intelligence quotient was way above the average, he did badly in school, disliked reading and, strangest of all, refused to go to the movies because attending one was invariably followed by nausea, occasionally by vomiting, and frequently by headache!

The oculist insisted that there was no refractive error of any significance. Glasses with his very small theoretical correction were tried, but did no good and the child, quite logically, refused to wear them. There were no visible deviations of the visual axes, and it was not till he was ten years of age that he became sufficiently coöperative so that any reliance could be placed on subjective tests. At that time a hyperphoria of three prism diopters was definitely proved. It had been suspected, because his mother had the same condition. A partial correction for this condition was worn, not only without protest, but with unfailing enthusiasm, because it relieved all of his symptoms and permitted him to do many things in comfort which he had been unable to do before.

COMMENT

Similar case histories could be related for hours, but each one of you has had the experience of seeing a pair of lenses transform a poor student into a good one if the lenses are prescribed early enough so that his tastes and habits are not too firmly fixed. The fact that the mother and father may be almost illiterate does not mean that their children must grow up into the same type. Such parents may be the ones who most wish their children to have the advantages they were denied. However, the greatest difficulty may be encountered among the well-to-do, who may be quite willing to have their children's eyes examined, but who are likely to have a violent prejudice against their wearing glasses, particularly if their own eyes are normal. If this situation is encountered, it is the duty of the oculist to demonstrate to the parent the desirability of trying the proper correction. In a child it works like a chemical reaction. If the glasses give better vision, no amount of parental prejudice will prevent him from wearing them.

IN CONCLUSION

After three years of testing the eyes of children in our office, we feel that it is inexcusable for any pediatrician to omit routine eye tests from his physical examination, and that *he must* work closely with some very good oculist who will give the fullest coöperation in the handling of these problem cases, and who is familiar with the importance of muscular anomalies and also who has the equipment and the point of view needed to test for their presence.

490 Post Street.

DISCUSSION

George H. Kress, M.D. (945 Roosevelt Building, Los Angeles).—Doctors Lucas and Palmer have called our attention to an important subject worthy of consideration not only on behalf of the children suffering from ocular defects and eye-strain symptoms, and whose future careers are often involved, but also because the noncorrection of refractive defects in school children is responsible for the outlay of thousands and thousands of dollars annually, the expenditure of which could be prevented if early recognition and proper care were given to these citizens of the future. During recent years, particularly in the school districts of larger cities, much progress has been made in earlier detection of visual defects, with written request to the parents to refer the child to the family physician, or, if indicated, to a suitable clinic. It must not be forgotten that many supposedly stupid children are not mentally dull, but are the unfortunate individuals who, in the school room, lag behind and perhaps become mischief makers, because they cannot follow the writing on the blackboard with comfort, or suffer distress or aches when they read or do close work. It is from this group of children who suffer from eye, ear, nose and throat and other physical defects that many of the truants come, and it is also this group who make up most of the "repeater classes" in schools. In different walks in life, a refractive error that gives a child discomfort may lead to laziness, indifference, early school abandonment, truancy and even worse evils. For all of which reasons physicians, as the family medical counselors, should be alert to point out to parents the presence of visual defects in children.

The authors have indicated the causes of defective vision and stated the case correctly when they pointed out that children who are found to have normal vision, and are making average or better progress at school, need not be referred to oculists, but that those who do not fall in this group merit special examination.

Almost twenty-five years ago, Dr. Frank Allport of Chicago, as chairman of the American Medical Association Committee on Conservation of Vision, in coöperation with the American Medical Association Council on Health and Public Instruction, brought off the press a series of more than twenty pamphlets in which the care of the eyes and the prevention of blindness were emphasized. He devised at that time a modified Snellen chart made by F. A. Hardy & Company, 10 Wabash Avenue, Chicago, that was admirably adapted for the testing of vision by school nurses and teachers, and of equal use for physicians who desired to keep records of visual defects. The single chart, with directions, was sold at that time for 35 cents, and was adapted for both literate and illiterate individuals.*

* These charts, with full directions for use attached, may still be had at the price of 35 cents each from the American Optical Company, 10 Wabash Avenue, Chicago, or its San Francisco branch at 25 Kearny Street, or its Los Angeles branch, 315 West Fifth Street.

We agree that pediatricians, and physicians in general practice also, may well do routine eye tests as part of physical examinations, in order that children whose ocular deficiencies cause visual and eye-strain discomfort may be referred to oculists for further check. For, as already stated, it is not only the eyes that are involved; at times, the mental development, too, and the future of the individual may depend upon early recognition and correction of the defects.

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George N. Hosford, M.D. (490 Post Street, San Francisco).—The conclusions and outline of the procedure which Doctors Johnson and Lucas follow appeal to me as excellent in every respect and adequate for a pediatrician's office. I am perfectly well aware that the pediatricians have had their problems, as far as oculists are concerned. In the first place, two schools of thought exist among oculists in regard to the wearing of glasses. On the one hand, we have the type of oculist who prescribes glasses—I sometimes suspect to make the figures come out even on the chart—for small and negligible refractive errors, and the children, of course, fail to wear them or to derive any benefit if they do wear them. There is, however, fortunately, another school of thought about the matter, and the practice of this group is to prescribe glasses for the relief of symptoms, and with some thought in mind of the psychological effect upon the child and the development of his personality—a very important point. During my own time in practice I have seen a notable advance in the care of children's eyes. We are getting the patients with ocular deviations earlier, getting them corrected before the child enters school. The classical teaching that "for cross eyes one does nothing until the child is seven years of age, at which time the doctor cuts a little muscle and from then on the eye becomes normal," is, fortunately, disappearing from the literature and from the teaching of the ophthalmic departments of the medical schools.

The paper commends itself to me as much for what the authors did not say, as for what was presented. For example, they did not once mention the "percentage of vision," for which I am duly grateful. Vision is far too complex a phenomenon to be reduced to percentage, and more needless worry is engendered in the minds of patients and parents by this term than any other one thing the oculists do. They, of course, know that 20/20 means that a letter of a certain size can be read at a distance of twenty feet, and they know that 20/30 means that a letter of a slightly larger size can be read at a distance of twenty feet instead of at thirty feet, the distance at which it could be read by an emmetropic eye; but to translate the conventional notation 20/30 into the fraction 2/3, or 66 2/3 per cent, constitutes an obvious fallacy. For all practical purposes, 20/30 vision is just as useful as 20/20 vision if it is obtained with comfort. You may imagine the parent's state of mind if the child has been found to read 20/200, and has been assured that he has only 10 per cent of normal vision, when he has never made the slightest complaint and apparently can do all of the things which his playmates do. The psychological scars left by this sort of loose statement cannot, in many instances, be erased even by long periods of time, and they do not add to the prestige of the medical profession when they are made.

One point which was not mentioned is the thing which comes first in the parents' mind when glasses are suggested. They always feel that their individual children are so active, and play so roughly, that it would be impossible for them to wear glasses. Of course, this is not the case. If a child really needs glasses and derives benefit from them, they quickly become his dearest possession and the wearing of them presents no problem except that occasionally the frames need to be straightened. The parents invariably feel that glasses constitute a great hazard to the eyes; the reverse, of course, is actually the fact. All oculists are called upon to extract foreign bodies and repair lacerations and treat contusions of the eyes, but these injuries universally occur in the group of children who do not wear glasses. It is our daily lot to prescribe glasses again for patients who have had an accident and a lens has been broken. In these cases, we do not, as one might expect, find spectacle glass in the eye. The lens may break, but during the fraction of a second during which the progress of the missile is slowed up, and its force dissipated by breaking the lens, the lid closes and interposes a very effective shield between the missile and the eyeball.

In a previous paper, Dr. Franklin G. Ebaugh referred to the "psycho-analytic racket" and the "endocrine racket." In my opinion, these are jokes compared with the "eye-exercise racket," and most children who are sitting in offices three or four times a week watching the colored lights go round and round would be much better off out in the open playing. As the authors have said, visual defects depend upon the shape, and the anteroposterior diameter of the eyeballs, and we are quite powerless to alter either the diameter or the shape by any amount of so-called eye exercise. Most ocular deviations depend upon equally fixed anatomical anomalies, and there again it is not logical to expect much from exercise.

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Clifford Sweet, M.D. (242 Moss Avenue, Oakland).—Doctors Lucas and Johnson have emphasized one of the most important and usually most neglected fields of preventive pediatrics. All who work with children are deeply indebted to Doctor Lucas for many sound ideas carried to practical completion, not to mention the great number of fortunate children into the very fabric of whose lives his ideas and work are interwoven. If the ideas and methods in this paper receive the attention and following they deserve, this contribution will be a great one, indeed, to the welfare and happiness of children.

I agree thoroughly that every child should have his eyes refracted under atropin, and for many years I have been attempting to get every child in my practice into the hands of a competent oculist before he enters school.

The evident advantage of the study of the child's eyesight in the pediatrician's office is that, if defects are found, it is easy to persuade the parents to have further study by a competent oculist. The only objection to this procedure is that a certain number of parents will be given a false sense of security because no defect is found by the necessarily incomplete examination made in the pediatrician's office. This observation is made not as an objection to the method, but to help emphasize the necessity of making the fact that this examination is of necessity less complete than that of the oculist, very plain to the parent. One of the first obstacles which I have had to overcome has been the attitude of the parent, which is indicated by his reply to my request that his child's eyesight be examined, "Oh, Doctor, my child's eyes have been examined at school and they are all right."

The authors' insistence that any child who is not doing well in school should have his eyes carefully studied is perhaps of more importance than anything less than a very complete study of the child's eyes by an oculist. Dr. Herbert Stolz, school physician in Oakland, has told me that he considers reports from the teachers as to whether or not a child is doing well in school a better "screen" for the detection of eye defects in children than is the routine application of the Snellen test. I hope the time may come when one of the conditions for a patient's entrance to school will be a thorough test of his visual ability under a mydriatic. This is so important that it might be a mitigating circumstance for even socialized medicine.

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A. Ray Irvine, M.D. (700 Roosevelt Building, 727 West Seventh Street, Los Angeles).—Needless to say, the ophthalmologist will welcome the point of view encouraged by Doctors Lucas and Johnson, namely, closer coöperation between pediatrician and ophthalmologist, resulting from an increased "eye-consciousness" on the part of the pediatrician. The authors well have illustrated how the pediatrician may benefit thereby. Granting that the correction of refractive errors may aid the pediatrician in solving some of his problems, obviously more dramatic aid will be realized by him in the recognition or suspicion of more serious eye abnormalities. These may be suspected by employing the tests Doctors Lucas and Johnson have discussed for use in a pediatrician's office, namely, visual acuity, the use of the pinhole disk in this regard; the cover test; and, I should like to add, the routine use of the ophthalmoscope; and careful observation of the pupils and the extra-ocular movements, especially noting nystagmus. I should like to elaborate a little further on these. The

cover test is an exceedingly simple method by which the pediatrician may recognize phorias and possible squinters. A simple amblyopia might also be suspected by this test; or, if found by the visual chart, better explained. Gross refractive errors can be noted in the routine use of the ophthalmoscope. The pediatrician should be as adept with the ophthalmoscope as the internist, and, in addition, somewhat of a contortionist as well.

I was glad to see that the authors mentioned the problem of head-tilting. To me, this is the one point that needs stressing to pediatricians. There have been cases of head-tilting, under the care of reputable pediatricians, who have had needless surgery on the sternocleidomastoideus muscle without results, when simple tenotomy of the inferior oblique muscle would have remedied the situation immediately. Also, cases of high astigmatism may show head-tilting, which readily responds to the wearing of a corrective glass. In my experience, ocular torticollis is much more prevalent than is generally recognized.

As a passing suggestion, I would warn the pediatrician against the ophthalmologist who puts glasses on a child to correct a slight degree of astigmatism or hyperopia. Few eyes are refractively perfect, as the authors have said. A considerable degree of hyperopia is the rule in children, and they readily compensate for it. The stigma of "four eyes" on such children probably affects the personality complex much more than the supposedly corrective glass affects the visual impression.

On the other hand, the opposite point of view must be taken in cases of myopia, because lack of correction, or even undercorrection, not only affects the personality through limiting the visual impression, as the authors have mentioned, but may have a definitely harmful effect in allowing progression of an organic nature to take place. This is the opinion of most ophthalmologists. Whether the correction *per se* stops the progression, or the fact that the eyes are used less for close work with the glasses on, is debatable. In these cases the pediatrician can be of great help to the ophthalmologist in encouraging the families of myopic children to see that they wear their glasses all the time.

This paper is to be commended in emphasizing the mutual benefit to be derived in the coöperation of pediatrician with ophthalmologist.

MATERNAL AND CHILD WELFARE: ITS PROGRESS UNDER THE SOCIAL SECURITY ACT*

THE RELATION OF THE ACT TO OBSTETRICS IN CALIFORNIA

By Lyle G. McNeile, M.D.
Los Angeles

Discussion *by Howard Morrow, M.D., San Francisco; Karl L. Schaupp, M.D., San Francisco.*

THE necessity for some systematic effort to improve the standards for maternity care and the care of children has been generally recognized by both the laity and the medical profession for many years. Thus, as early as 1909, the first White House Conference on Child Welfare was called by the late President Theodore Roosevelt; this led, directly or indirectly, to various attempts to solve the problem.

In November, 1921, the act for the "promotion of the welfare and hygiene of maternity and infancy," popularly known as the Sheppard-Towner Act, became law. When the Act came to an end in 1929, forty-five states and the Territory of Hawaii were coöperating under its provisions, and public knowledge of the health problems of the infant and child and of the importance of adequate prenatal care had increased to a very marked extent.

SHEPPARD-TOWNER ACT

The Sheppard-Towner Act, great as were its benefits, was never wholly accepted or endorsed by physicians, and many times was violently opposed by the profession. As the author interprets this opposition, it was not due to a failure to recognize the necessity for promoting the objects of the Act, but rather to a sincere belief that a strictly medical problem was being undertaken by certain branches of government without affording the medical profession the opportunity to advise and coöperate in the undertaking. In other words, our profession felt that the undertaking was an attempt on the part of governmental agencies, largely nonprofessional in character, to assume professional prerogatives.

WHITE HOUSE CONFERENCE ON CHILD HEALTH AND PROTECTION

The White House Conference on Child Health and Protection, held in Washington in 1930, brought together what was probably the largest group ever assembled in the National Capital to consider the needs of mothers and children. A vast amount of data on child health and child welfare was assembled, and these reports led, directly or indirectly, to the presentation and adoption of legislation which the author believes will be of the greatest benefit to the mothers and children of the United States, as well as to our profession which is charged with the duty of providing for their medical care.

HOW FEDERAL AID IS ALLOCATED THROUGH THE SOCIAL SECURITY ACT

The Social Security Act (1935) authorizes federal aid to the states for certain phases of child health and welfare, including grants for aid for maternal and child-health services, for services for crippled children, and for child-welfare services. The particular activities which this society is interested in are those covered in and known as Title V, Part 1, maternal and child-health services, and only these will be discussed.

The administration of this part of the Act is under the immediate direction of a Maternal and Child Health Division of the Federal Children's Bureau, headed by a physician, and receiving general supervision from the assistant chief of the Children's Bureau, who also is a physician.

The distinction between Title V, Part 1, maternal and child-health services, and Title V, Part 3, child-welfare services, is well outlined in the stated purpose of each part. Thus, maternal and child-health services deal with the promotion of the *health* of mothers and children, while child-welfare services deal with the establishment of welfare services for the protection and care of homeless, dependent,

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Read before the Obstetrics and Gynecology Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.

and neglected children, and children in danger of becoming delinquent.

Under the provisions of the Act, each state or territory participating must submit a "state plan" which must conform with certain conditions. The conditions, which are of professional interest, are stated briefly as follows:

1. *Financial participation by the state.* The largest part of the federal allotment to each state must be "matched" by the state, but a smaller amount may be allotted outright, according to financial need for assistance in carrying out the state plan.

2. *Administration of the plan by the State Health Agency.* In California the administration has been made a function of the California State Board of Health, the actual administration being the responsibility of the Bureau of Child Hygiene, of which Dr. Ellen S. Stadtmuller is chief.

3. *Provision for extension and improvement of local maternal and child-health services.* You will note that this provision does not contemplate the duplication of existing local services, but provides only for their extension and improvement. It is the policy of the Federal Children's Bureau to proceed in such extensions and improvements *only* with the coöperation of the local medical and nursing organizations. It is not the intention of the Act, or of the Bureau, to act unless or until such coöperation is obtained.

4. *Provision for coöperation with medical, nursing, and welfare groups and organizations.* In California the report of the Committee of Maternal Welfare of the California Medical Association was submitted to the House of Delegates on May 24, 1936, and was adopted without discussion. The Committee recommended:

(*a*) That the Association endorse the plan of the Division of Maternal and Child Hygiene of the California State Board of Health, in connection with the Social Security Act.

This endorsement was predicated upon:

(1) Any change in the state plan must be submitted to this committee before becoming effective.

(2) That a systematic and widespread educational program in obstetrical problems for the general practitioner be instituted at once in coöperation with the State Board of Health.

5. Provision for development of demonstration services in needy areas and among groups in special need.

ADOPTION OF THE CALIFORNIA "PLAN"

The Bureau of Child Hygiene of the California State Board of Health submitted a "Proposed State Plan" to that Board on July 15, 1935, and the plan was adopted. The plan was then submitted to the Federal Children's Bureau, and was approved by the Chief of the Children's Bureau as conforming with the conditions of the Act.

OPERATION OF THE PLAN IN OTHER STATES

As of June 1, 1936, forty-three states (including California), the District of Columbia, Alaska, and Hawaii have qualified for these federal grants. Practically every state now has a Bureau of Maternal and Child Health with a medical director in charge. All state plans have one or more similar features aimed at the education of doctors, nurses, parents, and children in the care of the health of the mother and child. The Ohio plan, for instance, includes an educational program for county public-health nurses on maternal and child hygiene, an educational program for mothers' clubs, parent-teacher associations, and other organizations; preparation and distribution of literature, a demonstration program in setting up prenatal classes, infant-welfare stations, and preschool conferences; a monthly bulletin on maternal and child health; consultation services to health districts on maternal and child hygiene; investigations of maternal deaths; etc.

New Jersey is offering obstetric consultation services to physicians through the maternal-welfare commissions of the county medical societies.

I am quoting these two plans to emphasize the point that, under the Social Security Act, there is absolutely no plan of procedure which the individual states are expected to carry out. Instead, the local problems and their solution are expected to be outlined and solved by the local medical men.

In order to consider these local problems properly, the Children's Bureau suggested that each State Health Agency immediately appoint an Advisory Committee which should be composed of representative members of the various professions and agencies interested. The California State Board of Health appointed such a committee on February 15, 1936. Among the members representing our profession in obstetrics were Dr. Frank Lynch, Dr. Karl Schaupp, Dr. Thomas A. Card, and myself.

FEDERAL CHILDREN'S BUREAU ADVISORY COMMITTEE ON MATERNAL WELFARE

To advise with the Federal Children's Bureau in matters relating to the operation of the Act in so far as obstetrical problems were involved, an Advisory Committee on Maternal Welfare was appointed early in 1936. This committee is composed of Dr. Fred L. Adair, University of Chicago School of Medicine; Hazel Corbin, R.N., New York Maternity Center Association; Robert L. De Normandie, Boston; George W. Kosmak, Editor of the *American Journal of Obstetrics and Gynecology*; James R. McCord, Emory University School of Medicine; Lyle G. McNeile, University of Southern California School of Medicine; Alice N. Pickett, University of Louisville School of Medicine; E. D. Plass, State University of Iowa College of Medicine; and Philip F. Williams, University of Pennsylvania School of Medicine.

At the meeting of this Federal Advisory Committee, held in Washington, D. C., on March 14, 1936, the Committee, among other things, recommended:

1. That it seemed of paramount importance that the various state health officers, and those entrusted with activities under the Act, attempt in every possible way to

bring about the *active* coöperation of the medical profession in the application of these activities.

2. That one of the chief remedies for high maternal mortality and morbidity lies in the education of the medical profession, and that no state plan is complete unless it contains some provision for postgraduate education in obstetrics.

These recommendations were transmitted to the members of the Professional Advisory Committee of the State Board of Health, and to the California State Board of Health by me on March 25, 1936.

At the recent meeting of the Federal Children's Bureau Advisory Committee, held in Washington on March 20, 1937, the recommendations cover two special aspects of the program:

1. Increased maternity care and care of the new-born.

2. A program of training in these fields for physicians and nurses.

In adopting these recommendations, the Advisory Committee on Maternal and Child Health Services (a larger committee having general supervision over all of the various phases of these subjects) emphasized one phase as follows:

"The failure to use the Advisory Committees (by state health agencies) is jeopardizing the success of the plan in several states, which makes cooperation an important problem still to be solved."

PROGRESS IN THE OPERATION OF THE PLAN IN CALIFORNIA

As has already been stated, a proposed State plan for California was submitted to the California State Board of Public Health by the chief of its Bureau of Child Hygiene, Doctor Stadtmuller, on July 15, 1935, and after consideration and adoption by the Board, was submitted to the Federal Children's Bureau and approved as conforming with the required conditions. The plan outlined an extremely well-balanced program, of great interest and benefit to the medical and nursing professions of this State, and of inestimable value in promoting maternal and child health.

As of April 23, 1937, we find that an extremely well-rounded-out program for the care of the infant is in operation. The medical staff consists of seven full-time pediatricians whose districts cover the rural counties of the State. In addition, one full-time dentist has been placed upon the staff and has started a rural dental demonstration in Sutter County. The State Bureau now employs nine county nurses in the rural counties of California, a supervising nurse and a district supervising nurse, as well as three staff nurses engaged in the migratory and Mexican demonstrations. This portion of the plan is filling a definite need, and is being admirably carried out.

A beginning has been made in the establishment of prenatal care in those counties whose hospital care of indigents provides for care only at delivery. The State Bureau expects to extend this phase of the work as rapidly as possible.

"The California State Board of Public Health believes that the activities of its Bureau of Child Hygiene should be specially directed toward educating mothers to appreciate the services which the medical profession can render, and in advising, encouraging, and urging mothers to seek this medical protection."[1] It may be permissible to recall that this was the program under the Sheppard-Towner Act, and that the consensus of opinion, among those who are most familiar with the present conditions relating to maternal and child health, is that possibly its outstanding accomplishment was the education of the public in the appreciation of the health problems of the infant and child, and of the importance of adequate prenatal care. It is not the intention of the author to minimize the importance of such educational efforts, nor of any portion of the plan which has already been put into operation by the Bureau of Child Hygiene. It is, however, his desire to call the attention of the medical profession in California to certain fundamental omissions which have occurred in its operation, and to point out the great opportunities which the Act provides and which have not been utilized to any great extent in this State.

SPECIFIC INSTANCES IN WHICH THE PLAN IN CALIFORNIA HAS FAILED WHEN JUDGED BY ITS OPERATION IN OTHER STATES

This question can perhaps better be answered by quoting from the report of the Director of Maternal and Child Welfare Division of the Federal Children's Bureau, dated April 1, 1937, from the recommendations of the Advisory Committee on Maternal Welfare, and by comparing these facts with the progress made in California.

1. Although a Professional Advisory Committee of the California State Board of Public Health was appointed on February 15, 1936, no meeting of the Committee has ever been called. In some few instances, members of the Committee have been asked for their individual opinions, but no attempt has been made to encourage the discussion of the local and general problems by the Committee, which is composed of representatives of the medical and nursing professions and other interested agencies.

You will recall that I have already emphasized the finding of the Advisory Committee on Maternal and Child Health Services of the Federal Children's Bureau, which stated "the failure to use the Advisory Committees (by State health agencies) is jeopardizing the plan in several states."

2. Although on May 24, 1936, the California Medical Association adopted the report of its Committee on Maternal Welfare, which had endorsed the State plan, but predicated its endorsement upon (1) changes in the State plan's being submitted to the Committee before becoming effective, and (2) the immediate institution of a systematic and widespread educational program in obstetrical problems for the general practitioner, absolutely no attempt has been made to date to begin such an undertaking.

Of the other states, forty-one states and Hawaii are conducting postgraduate courses in obstetrics and pediatrics for local physicians. Fourteen states have used lecturers from their own states; six have used local and out-of-state lecturers; twelve states and Hawaii have requested their lecturers from out

of the state; and eight states have twelve full-time lecturers on their staffs (of which five are pediatricians and seven are obstetricians).

This failure is particularly significant and inexcusable, when one considers that the Committee on Postgraduate Activities of the California Medical Association, composed of Dr. Clarence G. Toland, Dr. John C. Ruddock, Dr. F. F. Gundrum, and the Secretary of the Association, has outlined a comprehensive program and has facilities for putting it in operation should a request be made.

Even the nursing education program, which was most admirably outlined in October, 1936, for which a teaching staff had been selected, and which was scheduled to be given in ten localities throughout the State during November, January, March, and May was canceled. No reason was given.

In the Federal Director's report, already mentioned in speaking of the program in other states, he remarks: "The coöperation between the state departments of health and the state medical societies which has been shown in carrying out this educational work has, in many states, brought about a more friendly feeling between these two groups than had existed in the past. No portion of the program has been more enthusiastically received."

Many of you will wish to learn more about the actual operation of the Act in California than can be profitably given in a paper prepared for a meeting of this section. For those, the author recommends reading a paper by Dr. Ellen S. Stadtmuller, Chief of the Bureau of Child Hygiene of the California State Board of Health, on "The Social Security Act: Maternal and Child Health." This paper will be read before the Pediatric Section at this session of the California Medical Association.

CONCLUSIONS

1. The maternal mortality rate in California has declined from 6.0 per thousand live births in 1925 to 4.5 in 1935.[2] During this period the death rates from sepsis have remained constant, the decline having occurred in the group "puerperal causes other than sepsis." This 1935 figure of 4.5 per thousand live births compares very favorably with the rate of 5.8 per thousand for the entire United States. The foremost authorities in this country feel, however, that the low mortality rate of 3.5 per thousand, the rate of some foreign countries, could be attained if the medical profession would earnestly and conscientiously make a systematic effort to lower our mortality.

2. Under Title V, Part 1, of the Social Security Act of 1935, opportunity has been afforded the medical profession of the various states and other governmental subdivisions to institute, and actively participate in, the improvement of conditions which they, the profession, believe should solve their local problems.

3. The most important factor which will insure the success of this program is the active coöperation between the state health agency (in California, the State Board of Public Health), the medical profession, and other interested agencies. The Children's Bureau, through their Advisory Committees, believe that this can be accomplished through the constant use of the state health agencies' "Professional Advisory Committees."

4. The most outstanding faults in the operation of the plan in California have apparently been the failure of the State Board of Public Health to make any use of its Professional Advisory Committee, and the loss of time in instituting a systematic and widespread educational program in obstetrical problems for the general practitioner.

5. A true spirit of active coöperation between the California Board of Public Health and the California Medical Association has existed for many years.

The author believes that if the medical profession of this State would indicate its great interest in the successful operation of the portion of the Social Security Act relating to Maternal and Child Health, the State Board of Public Health will, in turn, become more aggressive in extending its activities under the Act.

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REFERENCES

1. Quotation from paper by Ellen S. Stadtmuller, read before the Pediatric Section of the California Medical Association at Del Monte on May 5, 1937.

2. Figures compiled by the United States Bureau of Census, from official sources.

DISCUSSION

Howard Morrow, M.D. (384 Post Street, San Francisco).—The author's criticisms are hardly justified, as they do not take into account the California laws on the expenditure of public moneys. No money is available to defray traveling expenses of physicians or other citizens who are not employees in the legal sense.

Members of advisory committees are used for advice and are not legal employees. Letters of advice from members of advisory committees are always welcome, and are given careful consideration.

The Board of Public Health must maintain supervision of its bureaus and employees, and the orders must come from one source. Consequently, advisory committees and members of advisory committees must send their recommendations direct to the Board, which will then instruct the Director of Public Health to give such orders as are necessary to the chiefs of the bureaus.

The Board is willing, at all times, to inaugurate any methods when it is convinced that the suggested procedures will not jeopardize the public health nor the rights of physicians in private practice.

Karl L. Schaupp, M.D. (490 Post Street, San Francisco).—It is not necessary to say much in discussing Doctor McNeile's paper, for he has covered the field very thoroughly and fairly.

It is true that the Professional Advisory Committee was not used very much earlier in the development of the program, but that has now been remedied. The State Board of Health, through Doctor Stadtmuller, its Director of Maternal Welfare, in coöperation with the Advisory Committee, has now a very practical plan which will do much toward helping to solve the problem. Under the proposed plan there will be the fullest coöperation with obstetricians as well as the general practitioner in the communities which are to be served.

I feel that the success of any such plan, which no doubt is needed, will depend directly upon the coöperation of the medical profession.

BRANCHIOGENETIC CYSTS*

By Eric Larson, M.D.
Los Angeles

Discussion *by Arthur E. Smith, M.D., Los Angeles; L. R. Chandler, M.D., San Francisco; John Homer Woolsey, M.D., Woodland.*

BRANCHIOGENETIC, or branchial cysts, occur frequently enough to occasion a review of their characteristic features and the problems relating to their successful care.

We may classify the varieties of cysts in the neck as those lying in the midline, such as thyroglossal, dermoid and thyroid cysts, and those situated laterally, namely, branchiogenetic, hygroma, and parasitic cysts. Such possible entities as tuberculous abscesses, esophageal diverticula, and aneurysms are not classified as cysts, but they assume tremendous proportions when a differential diagnosis must be made.

This discussion deals with the diagnosis and treatment of thirty branchiogenetic cysts. Four of the patients so affected have been operated by me, the other twenty-six having been treated during the last decade by the staffs of the Los Angeles General Hospital and the St. Vincent's Hospital of Los Angeles.

EMBRYOLOGY

A review of the embryologic disposal of the fetal branchial apparatus is important for the comprehension of our subject. Rathke, in 1835, first described branchial clefts in the mammalian embryo. Twenty-four years later Rosen placed lateral cervical cysts on an embryologic basis as being of branchial origin. Not until 1912, however, when Wenglowski[1] published his thesis, was there any definite progress made in the study of the embryologic origin of branchiogenetic cysts. His theory ascribed their origin to remnants of the embryologic thymic duct, and indirectly to the branchial apparatus. Present authorities agree with this theory.

The branchial system appears in the third or fourth week of intra-uterine life, and is completely gone at the eighth week. There are five or six branchial arches which are separated by depressions, otherwise known as branchial grooves. The inner view of the pharynx shows these depressions, which are spoken of as pharyngeal pouches. In the gill-bearing animals the ectoderm and entoderm disappear in places and gill slits are formed.

Embryologists are quite agreed regarding the development of the branchial structure. The first arch divides, the superior portion forming the upper lip and part of the maxilla and cheek. The inferior portion forms the lower lip, a part of the mandible, the tongue and muscles of mastication. The first cleft forms the auditory canal and the lobe of the ear. The first pharyngeal pouch gives rise to the eustachian tube and the tympanic cavity. The tympanum is derived from the first gill membrane.

From the second branchial arch are derived the lesser cornu of the hyoid bone, the styloid process, and the stylohyoid ligament. The muscles of the base of the tongue, in its anterior portion as well as the arcus palatoglossus, are of this same origin. The tonsil and sinus tonsillaris develop from the second pharyngeal pouch.

From the third arch are derived the greater cornu of the hyoid bone, the stylopharyngeus muscle, and a portion of the muscles of the soft palate. From the third pharyngeal pouch the thymus has its origin, and from remnants of this structure bran-

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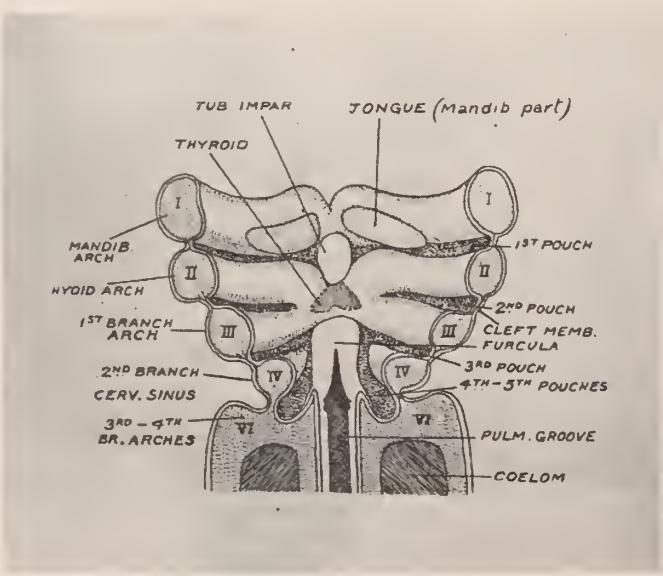

Fig. 1

Fig. 2

Fig. 1.—Showing the floor of the pharynx of a fifth week human embryo; arches shown with Roman numerals. (After Keith.)

Fig. 2.—Fourteen-millimeter embryo, showing development of pharynx, esophagus and trachea and related structures: *a*, thymus; *b*, esophagus; *c*, thymic duct; *d*, midthyroid lobe; *e*, lateral thyroid lobe; *f*, thymus duct; *g*, pharynx; *h*, thyroglossal tract; *i*, thymus tract; *k*, duct of lateral thyroid lobe; *n*, trachea; *o*, thymus. (After Wenglowski.)

Fig. 3

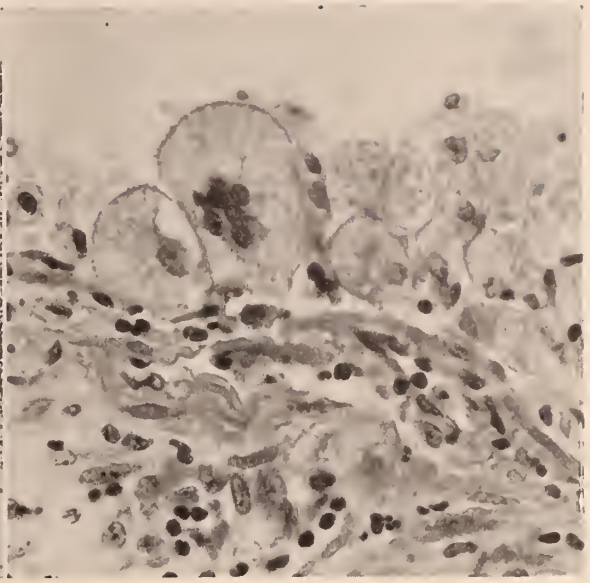

Fig. 4

Fig. 3. Medium-power photomicrograph through the wall of a branchial cleft cyst, showing a stratified squamous epithelial lining with lymphoid tissue in the connective tissue corium.

Fig. 4.—High-power photomicrograph of branchial cleft cyst, showing degeneration of the epithelium and phagocytosis of the lipoidal débris by macrophages.

chiogenetic cysts are formed. The fourth pharyngeal pouch gives rise to the lobes of the thyroid gland. The remaining fourth, fifth, and sixth arches lose their identity, but make up the soft parts in the tissues adjacent to the greater cornu of the hyoid bone.

WENGLOWSKI'S THEORY

The preceding reference to the thymus structure recalls Wenglowski's theory that cervical cysts and fistulae must have their origin in the thymus apparatus, which appears and descends laterally as a tubular structure from the third pharyngeal pouch in the 6.5 millimeters embryo to the lower border of the lobes of the thyroid. Here it becomes a gland-like organ which, at a later time, descends under the sternum and becomes the thymus gland. The trailing tubular structures normally disappear. Wenglowski stated that cervical cysts and fistulae must arise in remnants, as they are always located in the position and extent of the fetal thymic structure. To this most authorities now agree. He emphasized further that, since the main branchial apparatus does not extend below the hyoid bone, fistulae and cysts of branchial origin could not be found below this level. Since fistulae and cysts do occur below this level, the thymus anlage must be their origin.

We infrequently encounter an internal fistulous opening, in the supratonsillar fossa derived from the second pharyngeal pouch. That it is a remnant of the upper portion of the thymic duct is contradictory to the Wenglowski theory. An instance is reported where a patient could inflate a branchiogenetic cyst via the pharynx.

We, therefore, are committed to Wenglowski's theory in the explanation of the genesis of branchiogenetic cysts. The histologic picture conforms to misplaced epithelium. This varies from the stratified squamous type of epithelium to the transitional variety in the cysts high in the neck. In some instances the lining epithelium is columnar, often ciliated, and in these instances the cysts are found in a low position in the neck.

The wall of the cyst is composed mostly of dense fibrous tissue with lymphoid follicles scattered throughout. With bacteria present and usually the result of upper respiratory infection, the character of the retained material, and the reaction of the epithelial and lymphoid structures become altered.[8]

HYGROMA

Hygroma,[4] or lymphocele, is the most important cyst to be differentiated from the branchiogenetic type, its embryology being also important. It is of lymphatic origin, and arises from the jugular sinus seen in the third month of fetal life. The lymphatic

Fig. 5.—Low-power photomicrograph of cystic lymphangioma of the neck, showing dilated lymphatic spaces with well-developed muscle walls and endothelial lining. Occasional nodules of lymphocytes are noted in connective tissue, and coagulated lymph is seen in some of the cystic spaces.

Fig. 6 Fig. 7 Fig. 8

Fig. 6 (V. S., age 39).—Branchiogenetic cyst of eight years' duration. Extremely large and infected. Removed with vertical incision. Local anesthesia. Front view.

Fig. 7.—Side view of the same patient. Note location and lobulation of the cyst.

Fig. 8.—After six months. Vertical incision has produced a minimal scar.

structures are well developed in 30 millimeters embryo. They are ordinarily obliterated by connective tissue, and eventually form lymph follicles and gland nodes which originate from the endothelium lining the primary sacs. Structural faults may occur with failure to obliterate all or part of these sacs, which may develop cystic tumors of the neck, from the level of the styloid down to the axillary space. A recent patient was operated by us in whom the cyst was located in the right cheek and jaw region. Such cysts are commonly found in children in the posterior triangle and in the right side of the neck.

DIAGNOSIS

The diagnosis of branchiogenetic cysts can be made on finding a cystic tumor in the neck, laterally located and lined with epithelium, the wall consisting of dense fibrous tissue with lymph follicles scattered throughout. The content of these cysts is the product of epithelial metabolism, and when infection is present the character of the aspirated fluid is altered from the normal by the extent, type, and virulence of the infecting organism. The tumor is cystic to palpation and in many instances there is the sense of lobulation. Tenderness is absent, but it may exist in varying degree when infection is present. Diagnosis can be made by aspiration and careful microscopic examination of the retained fluid. Caution must be exercised against the introduction of bacteria when aspiration is made.

Because hygroma is of endothelial origin and contain lymph, aspiration and examination of the fluid make the diagnosis accurate. A cross section shows a sac lined with endothelium, containing a cobweb-like structure filled with lymph. The diagnosis of tuberculous abscess must be made on the infiltrating character of the tumor, and the absence of epithelial débris and lymph in the aspirated specimen.

TREATMENT

The treatment of branchiogenetic cysts requires complete surgical removal. The incision is made over the cyst, parallel to the edge of the sternocleidomastoid muscle. Careful dissection must be made, as the wall of the cyst can easily be ruptured. The carotid vessels should be identified and injury avoided. In the superior medical border of the cyst the surgeon must exercise care to remove an incomplete tract or a possible fistula communicating with the suprotonsillar fossa. Failure to recognize this structure may lead to a recurrence of the cyst or to a fistulous tract requiring further surgical procedures. Evacuating aspirations may be employed as a temporizing measure. The danger of introducing infection and the improbability of cure by this means should place this procedure in the discard.

Hygroma, on the other hand, is usually a difficult surgical procedure because of the tedious dissection of the many processes which may widely penetrate the adjacent structures. Rapid recurrence follows incomplete removal. One of our patients was operated upon twice by us, but there has been no further recurrence. Destruction with a sclerosing solution may be of great value, though I can find no report of the results of this method of treatment for hygroma.

Table 1, summarizing thirty instances of branchiogenetic cysts, reveals that the cyst is located on either side of the neck in almost equal proportions. The same distribution is true in respect to the gender of the patients. There were five recurrences (16 per cent), resulting from incomplete removal. One patient developed branchiogenetic carcinoma. It is interesting to note that in all instances the epithelium was of the stratified squamous variety, indicating high location of the tumor in the neck. In one patient there had been many aspirations with infection of cystic contents before total removal was done. It is interesting to note that one patient carried his cyst for nineteen years, and was operated upon three times during that period. At the last operation the insertion of a tracheotomy tube was necessary. Because of incomplete histories it is impossible to state the average duration of the existence of the cyst. These cysts occurred in middle life in most instances. In one patient the wound is still draining one year subsequent to operation, indicating that the cyst has not been completely removed. Local anesthesia was used in only one operation.

TABLE 1.—*Summary of Thirty Branchiogenetic Cysts—16 Per Cent Recurrence, 3⅓ Per Cent Malignant Change —Sex and Position Equal—Pathology Same in Each Instance—Duration Ranges from Three Weeks to Nineteen Years in Second, Third and Fourth Decades of Life*

Name	Sex	Age	Side	Duration	Anesthetic	Pathology	Miscellaneous
H. B.	M	25	R	3 months	?	Strat. sq. epi. and lymph nodules	
R. R.	M	27	L	?	Ethylene	"	
P. K.	F	36	L	3 weeks	Ether	"	
E. H.	M	17	R	2 years	Ether	"	
J. C.	M	17	L	1 year	Ether	"	
V. S.	F	39	L	8 years	Local	"	
M. H.	F	49	R	2 years	Ether	"	
O. M.	F	43	L	18 months	Ethylene		
M. C.	F	24	L	?	Ethylene		
H. K.	M	3	R	1 year	Ether		
G. H.	M	?	L	1 year	Local		
Z. G.	F	22	L	2 years	Ether		
T. G.	F	38	R	9 months	Ether	"	
P. G.	F	36	R	4 months	N_2O	"	
W. B.	M	51	R	5 months	Ether	"	
J. N.	M	29	L	2 months	Ether	"	
L. B.	M	28	R	3 months	Ether	"	
R. D.	M	30	R	4 years	N_2O	"	
J. M.	M	46	R	9 years	N_2O	"	
R. B.	F	44	L	?	Ether	"	
M. V.	F	22	L	?	Local	"	
G. B.	M	33	L	?	Ether	"	
W. H.	M	20	R	14 months	?	"	Two operations
T. P.	M	20	R	2 years	N_2O	"	Two operations
R. S.	F	19	R	19 years	?	"	Three operations
V. M.	F	21	L	5 years	N_2O	"	Three operations
C. C.	M	28	L	7 years	Ether	"	Aspirated many times
W. K.	F	28	R	6 months	Ether	"	Still draining after one year
J. A.	M	54	R	1 week	Ether	"	Thyroidectomy 3 weeks later
T. P.	M	43	R	?	?	"	Branchiogenetic cancer

SUMMARY

Branchiogenetic cysts occur in either side of the neck in equal proportions in both male and female. These cysts, lined with epithelium, arise from remnants of the thymus anlage and contain débris of epithelial metabolism. The walls are composed of connective tissue with lymph follicles scattered throughout. Complete surgical removal is mandatory. Hygroma, or lymphocele, which occurs usually in childhood, approaches more nearly the characteristics of the branchiogenetic cysts. Hygroma is readily diagnosed, because of the endothelial components of the tumor and the finding by aspiration of coagulable lymph.

1930 Wilshire Boulevard.

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DISCUSSION

ARTHUR E. SMITH, M.D. (1930 Wilshire Boulevard, Los Angeles).—Doctor Larson has brought to our attention a most interesting subject, and one that has intrigued me for many years. The diagnosis and treatment of cystic tumors of the neck present a problem with which the general practitioner is not quite so familiar, due to their comparative rareness.

A report of thirty instances of bona fide branchiogenetic cysts operated upon, with recurrence of 16 2/3 per cent, brings to our mind the importance of a thorough knowledge in the surgical treatment of this type of condition. One case in which he reported the occurrence of branchiogenetic cancer brings out a fact which must be borne in mind at all times: in patients with cysts of long standing we must always consider the possibility of malignancy, and always assure ourselves that it is not present before discharging the patient as cured.

From the standpoint of treatment the differential diagnosis between branchiogenetic cysts and hygroma is most important. Whereas branchiogenetic cysts are removed with relative ease and with comparatively little shock, the prognosis in hygroma must always be guarded due to the

nature of the cyst and the difficulty attending its removal. The diagnosis can usually be made by simple aspiration and examination of the contents under the microscope, since branchiogenetic cysts contain the products of epithelial metabolism, while hygromas contain the products of endothelial metabolism.

Whether these cysts and fistulae are developed from the remnants of the primitive thymic ducts, or whether they have other sources of etiology, is a problem that we cannot take up too seriously at this time and one in which we should not form hasty conclusions. Most authorities agree that Winglowski's ideas fit easily into the picture of these cysts and are more plausible than those offered by any other theory. However, for the present this need have no bearing on the treatment, since radical extirpation is mandatory in all cases.

The essayist has called attention to the necessity of being certain that the cyst in its entirety be removed. We would like to further emphasize this point and further admonish the surgeon to remove any possible fistulous tract that may lead to the supratonsillar fossa. Unless these factors are borne in mind, and unless the surgeon employs careful dissection, the result of the operation will be failure in 100 per cent of the cases. In the series reported by Doctor Larson there were recurrences which is entirely too high. If the treatment of this condition is carried out in a thoroughly painstaking manner, recurrences are very rare.

In the instance where we removed the extraordinary large cyst, local anesthesia was used. We were both amazed at the efficiency with which this work could be done without the use of a general anesthetic. The infiltration of novocain assisted greatly in the dissection of the cyst wall from the neighboring structures, and the capillary oozing was considerably diminished by the small amount of adrenalin in the solution. The patient responded remarkably well, showing no signs whatsoever of shock. It is our intention to use local anesthesia exclusively on these patients in the future.

❋

L. R. Chandler, M.D. (Stanford University Medical School, San Francisco).—It has been a pleasure to hear Doctor Larson's presentation and see his "movie" film showing the removal of branchiogenetic cysts. His review of the embryology of the branchial apparatus is thorough, but I do not believe all workers are agreed as to the exact and detailed origin of these cysts. Many branchiogenetic cysts are located near the external ear, or are in front of the tragus, and undubtedly come from the first rather than the third cleft or pouch.

In reviewing our experiences with branchiogenetic cysts at the Stanford clinics, I find our cases very similar to those reported by Doctor Larson. It is interesting to note that the great majority of these cysts make their presence known after puberty, although they are congenital in their origin. Complete surgical removal is always indicated. These cysts should not merely be incised and drained, as it usually results in infection and a persistent sinus which is more difficult to remove than a cyst. Unless there is some particular contraindication in a given case, I prefer a transverse or slightly oblique line of incision in the neck rather than the vertical incision demonstrated in the film.

❋

John Homer Woolsey, M. D. (Woodland Clinic).—Attention to the embryology of branchiogenetic cysts cannot be stressed too much, for upon this depends the location, the possible points of extension and, therefore, the recognition of the possibility as the probable diagnosis and, finally, the treatment. Doctor Larson's reference to the work of Wenglowski is important, for it is based on studies of the embryology in the human, whereas previous studies taught in medicine were based on studies on the guinea pig and rat, and are not exactly comparable. The location and extension of cysts in the persisting thymus-duct tract have, in my experience, run entirely regular as to relation to various structures such as the carotids, the hypoglossal and the glossopharyngeal nerves, and the styloid processes. A recognition of the location and possible extent of a persisting thymus-duct tract will prevent the altogether too frequent removal of the external orifice and some local fat, as is so frequently done with a preoperative diagnosis of sebaceous cyst.

The use of sclerosing solution for these cysts, and for the persisting thymus-duct tract, has been made. I mention it, but to condemn it. Experience demonstrates that the eradication of all the living epithelial cells by this method will not occur, and there results, due to a fibrosis here and a remaining epithelial cell there, recurrent multiple cysts—more difficult than ever to remove.

Surgery, with excision, is the only method to be employed. Aids are the study preoperatively by x-rays, having the tract and cyst, if there is clinical evidence of some connection with the surface either internally or externally, injected with an opaque substance; a preoperative staining of the tract with dye; or, better, an injection of the tract with a colored paraffin mixture (an oil dye as used by painters, in contrast to an aqueous dye, is necessary for this), with such a melting point that it can be injected while in the fluid state and then harden sufficiently to give a solid form to the tract. The latter aids greatly in the surgical dissection.

THE LURE OF MEDICAL HISTORY†

SARRÍA'S TREATISE ON THE CESAREAN OPERATION, 1830*

By Sherburne F. Cook, Ph.D.
Berkeley

III‡

VI. *The Actual Practice of the Cesarean Operation.*—One must have already at hand some tepid water for baptism, a scalpel (a kind of knife used by surgeons), with which it would be a good thing for every priest to be provided. In default of such a knife a shaving razor will serve, and if this is lacking, a well-sharpened penknife. Also one should have at hand some good wine and some aguardiente. In addition, there should be prepared and ready swaddling clothes for the infant, and some cloths to absorb and remove the blood and fluids which flow from the incisions which have to be made. All this being in readiness (for this purpose and all the following, one or two women, who are not delicate, but strong and nonpregnant, may assist), the corpse is grasped and arranged on a table or bed, in a supine position, that is, with the mouth upward. Below the waist is placed a pillow or a pile of clothing so as to raise the abdomen higher. When the body has been placed in this position it is covered with a sheet from the breast up, and the pubic region down, leaving only the abdomen exposed. The act is then commended to

†A Twenty-Five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of California and Western Medicine. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.

*From the Division of Physiology, University of California Medical School, Berkeley.

Of interest, in reference to these experiences related in the articles on "Sarría's Treatise on the Cesarean Operation, 1830," is the Associated News dispatch of September 2, 1937, which follows:

Twins Born When Mother Dies Gain

Infant twins—a boy and a girl—gained strength in Kingsville Texas, although their mother had died before they were born.

The mother, Mrs. George Conde, forty-one, wife of a tenant farmer, was brought to the Kleberg County Hospital on Monday suffering from a heart attack.

As the case grew worse Dr. D. A. Harrison was called. Dr. C. C. Carrithers accompanied him. "When she died," Doctor Harrison said, "everything was ready, so we just went ahead."

The boy weighed 4 pounds 12 ounces and the girl 5 pounds 8 ounces.

‡Part I of this paper appeared in the August issue, on page 107; Part II, in the September issue, on page 187. Part III is the concluding paper.

God in prayer, his help is asked with Holy Mary, St. John the Baptist and the Holy Innocents as intercessors, and He is petitioned to direct the procedure. Having made this Christian attempt to insure the result, the knife is taken in the right hand and an incision is made, commencing with the point of the breast bone (that is the point where the touch perceives the bone to end under the chest, and soft tissue to begin). A straight line is followed, passing the umbilicus to a point from four to six *dedos*[15] below it. This incision severs the part called by the anatomists *linea blanca,* and the muscles and membranes of the abdomen. It must be done with care, particularly by one who is not a practitioner or anatomist. In the process a depth of about one *dedo* should be reached, the average thickness of these muscles and membranes. Although in the region of the incision, made as stated above, there are few blood vessels, nevertheless when the operation is performed a short time after the death of the pregnant woman, there is always considerable flow of blood which may prevent seeing clearly what is being done. For this reason it is necessary to have available some cloths, as was stated above, to soak it up. Under the severed muscles there is, as will be noticed, a sheath or membrane called the peritoneum, which is the lining of the intestines, and all the other contents of the abdominal cavity.

The thickness of the latter is about that of a *peseta,*[16] for which reason much circumspection is necessary in order to cut it without rupturing the intestines. One begins to divide it in the upper region, making an incision large enough so that one or two fingers of the left hand may be introduced through the opening. Then it should be picked up and elevated while it is being cut in order not to rupture the intestine. If this occurs, the odor and any feces which escape will render the work more laborious. The peritoneal incision will be as long as that which was made in the muscles. Then the intestines are moved to one side in order to expose the uterus, in which cavity the fetus lies.

In order to sever the uterine membrane, even greater care is necessary than in the previous instances, for this membrane is quite delicate. Hence after applying the point of the knife with extreme gentleness, and after making a rather small opening, the two fingers of the left hand are introduced in a manner such as we described for the peritoneum, so as to elevate the membrane and guide the point of the knife, the fingers remaining under the point and protecting everything below. The uterus opened, there comes to light the sac surrounding the fetus, called the secundines. It is necessary to cut these with more care than the uterus, for immediately underneath is the poor fetus. One grasps the membrane between the thumb and index finger of the left hand, with a pinching motion, meanwhile lifting it a little, and then makes an incision large enough for the insertion of the fingers of the left hand. With the latter he parts the secundines of the fetus and guides the point of the knife so that it cannot touch anything inside. All the sheaths having been opened in this manner, the fetus is brought to view. The latter is observed to see if it is moribund or shows evidence of deterioration. If such is the case it is baptized without being removed, on account of the danger that it might die during the process of removal, as was pointed out elsewhere. But the precaution should be taken to lift it a little out of the water and blood which surround it. If it manifests no movement perceptible to the sight, the fingers should be applied to the navel string or umbilical cord or to the chest in the region of the heart, and if a pulse is evident the child should be baptized without fail, for it certaintly is alive. If after practicing these precautions no movement is perceptible, it should be baptized in its existing state (*bajo de condición*).[17] On the other hand, if it is found to be unquestionably dead, through the criteria of decomposition, gangrene, or similar phenomena, baptism should by no means be given.

If on penetrating the secundines the fetus is seen to be robust and healthy, it may be removed with both hands, some other person spreading the edges of the incision, and having been taken out it may be baptized with tepid water.

VII. The operation having reached this point, for the remainder one may depend upon the assistance of some woman who is experienced in midwifery. The umbilical cord is ligated at a distance of one *dedo* from the abdomen of the infant. The ligature should be made with care so that, if the infant lives, the cord may be severed at a distance of another *dedo* beyond the ligature. Thus, the cut will be two *dedos* distant from the surface of the abdomen, leaving the ligature just halfway between. The infant then is washed in warm wine, and calmatives (*confortantes*) are applied to the nostrils and mouth according to the weakness or sickliness which it manifests. Subsequent procedure involves appropriate care, using the standard methods.

VIII. This is the complete procedure involved in the famous and highly important cesarean operation. Manifestly its execution neither is difficult nor requires much study, although it demands that a person work freely and without embarrassment, and above all that nothing disturb or incommode him. Also what we said at the beginning is now apparent that this operation can be performed with such modesty and precaution that the most scrupulous vision will encounter no object which could offend it, because it is not necessary for the priest or operator to approach the corpse until the preparations have been made by the one or two women present. These preparations, as already described, consist of placing the body face up on a table or bed, raising the waist in order to place underneath a pillow, and covering the body in such a manner that only the abdomen is exposed. As far as the actual performance of the operation is concerned, it will be so far from causing evil thoughts to the wise man in this situation that rather the contrary

[15] A *dedo* is one forty-eighth of a Spanish *vara,* a unit of length, somewhat variable but usually about 33 to 36 inches. A *dedo,* therefore, would measure about three-quarters of an inch.

[16] The *peseta* is a silver coin, the Spanish monetary unit. Father Sarría obviously overestimates the thickness of the peritoneum.

[17] "*Bajo de condición,*" more often stated in missionary literature "*sub condicione.*" A term usually applied to stillborn or aborted infants who are baptized, no matter what their physical condition might be.

will happen. For he will be uncovering such marvels of the omnipotence of our Creator, in the structure and organization of the human body, the enclosure and formation of the fetus, that there cannot help but occur to him a thousand good thoughts concerning the wisdom and power of the Lord our God. Another type of meditation no less worthy and excellent may also come to his mind. This concerns principally self-humiliation and greater disillusionment with respect to the vanity and arrogance of men. For he will see and he will feel that the exalted state of pontiffs, the haughty grandeur and pride of emperors, kings and princes, the insolence of tyrants, and in sum all those conceited ones who, it seems, forever strut about the world, that all these had their origin in the filthiest place in nature, and lived there for a period of nine months. The duodenum, that is to say, the cloaca, of the human body is the mattress on which they rested, and the urinary bladder is the sheet which covered them and protected them from the hard projection of the pubic bones. In view of these marvels it is appropriate to exclaim, with these or similar words: *Valde enim mirabilis es, Domine et facies tua plena est gratiarum.*[18] Esther, Chapter 15, Vol. 17.

IX. Herewith we might conclude this treatise, since therein has been set forth the method of performing the cesarean operation and the reasons for performing it. But I think it would be well to add one very important point, a matter which may arise more than once. That is the course which the priest, or confessor, should pursue with a moribund person who finds herself pregnant under immoral or secret circumstances. You may ask, when the priest or confessor, finds by the confession which he has heard from a pregnant woman that such pregnancy is a result of immorality and delinquency, how shall he act in such a critical situation which may compromise the honor of the invalid and involve the sacrifice of the salvation and temporal life of the infant she carries within her. Father Rodriguez touches upon this matter, and although he expounds it at length with admirable doctrine, we will give the essence of his argument. He says that having taken the confession of the invalid to be certain that she is pregnant, one should ask her permission to talk under bonds of secrecy with the necessary person or persons, with a view to removing the fetus after her death. Furthermore, one should request her to discuss the matter herself after the confession offering, as is just, entire secrecy, that is that no one shall know about it except the midwife, if the latter can perform the operation, or otherwise such persons as may be necessary, who will be placed under the appropriate promise of secrecy. If the invalid neither resolves to give permission [to do the operation] nor wishes to discuss the matter after the sacramental confession, he shall deny her absolution. This is recommended by the most weighty authorities because such resistance is a mortal sin and consequently there is formal indisposition on the part of the penitent. But since it is more customary that the permission referred to is obtained, and that the invalid discusses the matter apart from the confession, she, at the point of death, will usually reveal the situation to her father or mother so that with such knowledge the latter may act with greater secrecy. The surgeon will have been informed concerning the grave necessity for maintaining confidential a matter of such solemnity, and, he being present, the operation will be performed as cautiously and prudently as may be desirable to preserve privacy. With the doctrine utilized in this problem, various other similar problems may be solved.

X. In the book, "Theological Morals and Presbyter's Guide," where various practical problems may be found as handled by a curate or other priest from divers towns of Spain, the author says that this operation ought to be performed even in the case of women of doubtful pregnancy, for one should and can baptize the live fetus, even if it is no more than an embryo, at least in its existing state (*bajo de condición*).

Note: It is unnecessary to take the precaution of placing a cannula or similar instrument in the mouth of the deceased. This is for three very sound reasons. Modern authorities state, and experience itself has shown that the infant may be removed alive one or two days after the mother's death, even when precautions are not taken. Furthermore, the opinion of the ancients is wrong that the respiratory system of the mother communicates with that of the infant.

Finally, if it appears to the minister at the altar indecorous and tedious to have talked only of this matter [*i. e.,* the cesarean operation], let him consider that as soon as the delicate infant presents itself to the view of its renowned benefactor [*i. e.,* the minister] the latter will say lovingly and gratefully the words of David in Psalm 9, V. 14: *Tibi derelictus est pauper tueris adjutor.*[19,20]

University of California Medical School.

[18] This quotation is from the Vulgate, and does not occur in the King James Version of the Bible. The Douay translation of the Vulgate renders the passage: "For thou, my Lord, art very admirable and Thy face is full of graces."

[19] This passage is also from the Vulgate, although it will be found in the King James Version, Psalms 10:14. The quotation, as given in the manuscript, is inaccurate, but the Douay translation of the verse reads: "To Thee is the poor man left: Thou wilt be a keeper to the orphan."

[20] Acknowledgment.—The writer is indebted to the librarians of the Bancroft Library, Berkeley, for their kind help and assistance in making these documents available.

HISTORICAL NOTES ON PUBLIC HEALTH IN CALIFORNIA*

THOMAS M. LOGAN, M. D., FOUNDER OF STATE BOARD OF PUBLIC HEALTH, AND ONE OF THE FOUNDERS OF THE CALIFORNIA MEDICAL ASSOCIATION

By GUY P. JONES
Sacramento

PUBLIC health in California began with the arrival in San Francisco of Dr. Thomas M. Logan in January of 1850. He had sailed around the Horn from New Orleans in a small schooner which consumed four months in rounding the cape. A native of Charleston, South Carolina, and a

* From the office of the Chief of the Division of Vital Statistics, California State Board of Public Health.

See also article on State Health Board in CALIFORNIA AND WESTERN MEDICINE, June, 1937, page 400.

graduate of the medical college of that state, he practiced in his native city and later, at the time of the discovery of gold, was practicing in New Orleans. He settled in Sacramento in August of 1850, beginning the practice of medicine immediately and laying the foundations of public health work in this state. He lived in Sacramento until his death, February 13, 1876.

His interest in the climatic, social and medical conditions in this new state was most intense. The status of endemic diseases and the differentiation between communicable diseases in California and in the eastern and southern states became objects of his close study. There was no organization of the medical profession in those pioneer days and Doctor Logan experienced great difficulty in obtaining desired information from his colleagues. He knew that fellow practitioners were obtaining, for their own use, valuable information relative to the cause and treatment of many diseases. He made the acquaintance of a small number of medical men who were willing to provide him with such epidemiological data as they might gather and who were willing to reply to his questionnaires relative to the possible relationship between weather and disease. Such men were few, however, and there was, in general, a lack of coöperation between the medical men of the early fifties. It was not until the arrival of Dr. E. S. Cooper in 1855 that definite progress was made in organizing the medical profession of California. He and Doctor Logan possessed the scientific spirit and their acquaintance and friendship led to the organization of the California State Medical Society (name at that time, Medical Society of the State of California) in March of 1856. Together they issued the call for the first meeting, which was held in Sacramento, with about 100 present. Open activities of the society ceased in 1860 and for ten years there was really no society in existence, although a paper organization was carried on for four or five years.

In 1863, Doctor Logan was appointed by the American Medical Association, at its annual meeting, as chairman of a special committee on the medical topography of the Pacific Coast. This provided him with authorization for carrying on his public health activities. He sent questionnaires concerning communicable diseases to many medical men throughout the state, continued his weather observations, wrote extensively for the medical journals and spent a large part of his time in the study of communicable diseases in California. In 1868 and 1869, Doctor Logan's activities along public health lines increased greatly. During those years he wrote extensively upon smallpox, "fevers," and subjects that had direct bearing upon the health of the general public. His prestige among members of the profession was growing and his steadfast hold to the truth in medicine made him an outstanding figure.

Meanwhile, the idea of an organized State Board of Health had been launched on the Atlantic seaboard; Massachusetts was the first to establish the idea in concrete form by means of legislative enactment for the organization of a State Board of Health in the fall of 1869. Dr. Logan, in constant touch with medical affairs in eastern states, became enthusiastic over the action taken in Massachusetts. He saw an opportunity for bringing about the realization of his dreams of twenty years. Almost singlehanded, he put through the legislation which brought into being the California State Board of Health and in April of 1870 that board began its functions which have been carried on continuously ever since. Doctor Logan became the first secretary of the board, which office he occupied until his death in 1876. Meanwhile, in 1870, Doctor Logan issued a call for the reorganization of the State Medical Society, which took place at a meeting held October 19, 1870. (Doctor Logan was elected to the presidency of the Medical Society of the State of California in 1870.) Organized public health became established in California coincidentally with the reorganization of the medical profession, each of which was destined to operate continually thereafter. Dr. Logan occupied the focal point in both organizations. He worked prodigiously in the advancement of the profession and at the same time held the chair of hygiene in the University of California. In 1873, he was elected president of the American Medical Association. His death was due to pneumonia, which followed a period of overwork in efforts to strengthen the public health laws of that time.

Doctor Logan was followed in office by physicians of ability. In the eighties, under Dr. F. W. Hatch and Dr. G. G. Tyrell, considerable was accomplished in organizing local health departments throughout the state and in stimulating the reporting of communicable diseases. Monthly reports were received and cases were tabulated. Circulars on communicable disease control were issued. During the nineties the activities of the board were not so conspicuous; more time was spent upon regulating the sanitation of state institutions and in exercising powers of quarantine. Smallpox was a matter of concern and received more attention than any other communicable disease. As a matter of fact, in this decade the board was less active in public affairs.

It was not until 1901, when Dr. N. K. Foster of Oakland was appointed secretary of the California State Board of Health, that the organization took definite form along standard lines. With no existing machinery, not even a desk at which to work, without even stationery or a chair to sit in, and with no records of the board which preceded him, he set to work at building a state public health organization that has functioned continuously and expandingly ever since. He brought the most important modern, scientific public health procedures into the state organization. The following bureaus were established under Doctor Foster's régime:

Hygienic Laboratory	1905
Bureau of Vital Statistics	1905
Bureau of Foods and Drugs	1907

In 1909 Doctor Foster resigned, but recognition and appreciation of relative values in public health administration continued. With almost no funds available in 1911 and 1913, the groundwork for tuberculosis control was laid and the collection of morbidity reports was started. Activities were maintained that led to the organization of bureaus

to carry on specific activities. During the years that followed, bureaus were established as follows:

Bureau of Tuberculosis	1915
Bureau of Sanitary Engineering	1915
Bureau of Venereal Diseases	1917
Bureau of Child Hygiene	1919
Division of Dental Hygiene	1920

The Bureau of Venereal Diseases terminated its activities in 1920 when funds for its continuance were no longer available. It was reëstablished in 1937. The Division of Dental Hygiene discontinued its activities in 1921 for the same reason.

During the period 1905 to 1927 activities in epidemiology and the control of communicable diseases were undertaken as an administrative function and partly as a laboratory function. Sanitary inspection was started in 1913, this work also being carried on as an administrative function. None of these activities took individual form until the state government was reorganized in 1927.

The State Constitution, Article XX, Section 14, states that the Legislature shall, by law, provide for the maintenance and efficiency of a State Board of Health.

CLINICAL NOTES AND CASE REPORTS

GRASS DERMATITIS*

By SAUL S. ROBINSON, M.D.
Los Angeles

IN 1926, Oppenheim of Vienna [1] first described forty cases of an unusual eruption appearing after bathing in the Ottakring baths in that city. The lesions were located upon the exposed parts of the trunk and the extremities, and were at first believed to have been caused by Sarcoptes bites. Further investigations, however, revealed that the patients had been lying in the meadow grass adjacent to the baths, exposed to the sunlight. Erythematous, linear, vesiculo-bullous lesions of crisscross and parallel-line configurations appeared twenty-four to forty-eight hours later over the skin areas touched by the grass. The eruption healed spontaneously in about one week, but at its sites were left dark brown macular stripes strongly resembling artefacts. These deeply hyperpigmented areas persisted for several months before gradually disappearing. Oppenheim named the condition "dermatitis bullosa striata pratensis." Cases have since been reported from various parts of Europe, including France,[2] Yugoslavia,[3] Italy,[4] and England.[5] Corson [6] reported one American case in October, 1935. The paucity of case reports in the United States is possibly due to the failure to recognize the disorder when seen. It is the purpose of this report to bring the characteristics of grass dermatitis to the attention of physicians in California and the West.

Fig. 1.—Grass dermatitis pigmentation showing the peculiar crisscross and linear lesions over the hand and forearm. One month duration.

REPORT OF CASE

Miss K. H., age 15, was admitted to the outpatient dermatology clinic with the complaint that "brownish lines" had appeared during the past month over her hands and forearms. The patient had mowed a lawn five weeks previous while exposed to a strong sunlight. During this procedure the cut grass had flown up out of the mower and had lightly touched her hands and forearms. On the next day an itching, bright red, striped, bullous eruption appeared over the back of her hands and the outer surface of her forearms. The disorder subsided spontaneously in about one week, leaving brownish discolorations at its sites. These hyperpigmented areas darkened considerably during the month previous to the consultation. No subjective symptoms were associated with the pigmentary lesions.

The dermatologic examination revealed the patient's exposed skin to be markedly hyperpigmented by exposure to the sunlight. A peculiar pigmented mottling was located upon the dorsum of the hands and the extensor surface of the forearms. The lesions consisted of dark brown macular crisscross and parallel linear configurations. The appearance of the eruption strongly resembled artefacts due to the actual contact of the grass blades with the cutaneous surface. No biopsy was permitted, and the patient failed to bring specimens of the grass for testing.

* Read before the Dermatology and Syphilology Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.
From the Department of Dermatology, Cedars of Lebanon Hospital.

1 Oppenheim, M.: Ottakringer Badebeiss, Wien. dermat. Gesellsch. (Oct. 20), 1926.
2 Lanzenberg, M. P.: Bull. Soc. franc. de dermat. et syph., 39:1524, 1932.
3 Philadelphy, A.: Wien. Klin. Wchnschr., 41:88, 1928.
4 La Cava, G.: Policlinico (Sez. prat.), 40:891, 1933.
5 Corsi, H.: Brit. J. Dermat., 45:542, 1933.
6 Corson, E. F.: Meadow Grass Dermatitis, Arch. of Derm. and Syph., 32:616, 1935.

COMMENT

The etiologic agents in grass dermatitis (dermatitis bullosa striata pratensis) are the actual contact of the skin and the grass in a susceptible subject with the exposure to the sunlight of the involved areas. Although many grasses have been tested, the type of grass or herb responsible for the eruption has not been determined.[7,8] The European cases have occurred in most instances after taking sunbaths in meadows or on river banks. Many sufferers of the disorder, as was the case with my patient, did not go into the water. Negative results were obtained on testing salicylic acid compounds in leaves, and trauma caused by the cutting edges of the grass.[4,7,8]

M. Kitchevatz [8] believes that the chlorophyll in the grass and red rays of light are the causative agents in meadow-grass dermatitis. This investigator applied chlorophyll solution for one hour to slightly scratched skin in normal individuals and then exposed the areas to the red rays of light. In a few of the patients so tested, inflammation and subsequent brown pigmentation occurred that simulated the peculiar appearance of grass dermatitis. Exposure to the ultraviolet rays did not produce the erythema or the subsequent pigmentation. The explanation of the action of chlorophyll lies in its ability to render plants responsive to the red rays, the most active rays, of the solar spectrum. Oppenheim [1] noted that the areas of skin hyperpigmented by sunlight are especially affected. My patient presented a marked general pigmentation of the skin of the affected parts. Kitchevatz [8] reported a case with vitiligo where the depigmented regions were not affected while the hyperpigmented areas were involved.

Diagnosis.—In the diagnosis of dermatitis bullosa striata pratensis, the important factors to note are the bizarre, striated and crisscross, early, erythematous, vesiculobullous lesions on the exposed parts of the body, simulating artefacts that later become hyperpigmented on healing. This hyperpigmentation tends to persist for several months before slowly disappearing. A history of actual contact with grass or herbs prior to the outbreak confirms the diagnosis.

Treatment.—The therapy of grass dermatitis in the inflammatory stage is similar to that of dermatitis venenata. The application locally of a soothing preparation, such as calamin lotion, N. F., is beneficial. No therapy has been found to date to prevent the secondary pigmentary changes or to cause their disappearance more rapidly when formed. The marked progressive pigmentary changes in the lesions could possibly be prevented by the early protection of the areas from further exposure to light. It would be well to caution patients with the disorder to avoid future contact with grass or plants.

1930 Wilshire Boulevard.

[7] Siemens, H. W.: Dermat. Wchnschr., 85:1577 (Nov. 12), 1927.

[8] Kitchevatz, M.: Ann. de Derm. et de Syph., 5:293, 1934.

RUPTURED INFRAPATELLAR LIGAMENT*

REPORT OF TWO CASES

By Lewis Cozen, M.D.
San Francisco

THE infrapatellar ligament (ligamentum patellae) extends from the patella above to the tuberosity of the tibia below. Ruptures of this ligament are not common. Wagner, in 1927, could find only one case reported prior to his observation. Although Gallie, during the same year, recalled having seen five patients with ruptured infrapatellar ligaments, he described none of his cases. McMaster, in 1933, refused to accept Gallie's cases as authentic. Haldeman and Soto-Hall listed five cases of ruptured patellar tendon, with no accompanying description. Conwell and Allredge, in 1937, reported an additional case of this nature.

At the San Francisco Hospital during a period of eight years, from 1928 to 1936, one case of ruptured ligamentum patellae was observed. In July, 1936, a second ruptured infrapatellar ligament was repaired. During this same period of eight years, more than 115 fractures of the patella were treated at the hospital.

A brief description of the two cases follows.

REPORT OF CASES

Case 1.—J. T., aged 68, tripped on a street corner while intoxicated. He fell on his left knee, experienced severe pain in the region of the left patella, and was unable to arise. On examination five hours after injury, a diffuse hemorrhagic discoloration, covering the inferior border of the patella and the infrapatellar ligament, was noted. A definite transverse groove, 1.5 centimeters wide, could be palpated in the center of the ligamentum patellae. No active knee extension was possible. X-rays showed a definite transverse shadow, corresponding to the groove of a ruptured infrapatellar ligament. The patella seemed to be slightly higher on the femur than normal.

Treatment consisted of skin traction immobilization for ten days, followed by suture of the torn ligament by Dr. R. Dresel and the author. The illustration demonstrates the incision used. The ligament was found to be completely ruptured in its mid-third. A gap of one centimeter was filled with fibrinous exudate and fibrous tissue. No tear of the knee-joint capsule was noted.

After trimming the irregular edges of the torn ligament, the tear was repaired by three mattress sutures of No. 2 chromic catgut. Following closure of the operative wound, the knee was immobilized in plaster for two weeks.

* * *

Case 2.—T. M. On February 19, 1932, this patient stumbled, fell down several stairs. He was unable to extend his knee actively; he could bear no weight on the left leg. The patella appeared slightly higher (cephalad) as compared with the opposite knee. A hiatus could be palpated over the infrapatellar ligament, and x-rays confirmed the clinical findings. Dr. K. Haldeman employed a paramedian incision to repair the defect in the ligament. The ligament was found to be ruptured off the anterior and inferior surface of the patella. The torn ligament was approximated with chromic catgut mattress sutures. A leg cast was applied. The patient was discharged two weeks after surgery. Subsequent course not obtainable.

COMMENT

The diagnosis of a ruptured infrapatellar ligament is not difficult if one bears it in mind as a possibility in injured knees. The loss of active knee extension and the presence of a palpable transverse groove just distal to the patella make the

* From the service of Drs. L. Abbott and F. Bost.

Fig. 1.—Laeral roentgenogram of L. T. Case 1. Arrows in Figures 1 and 2 point to tear of infrapatellar ligament.

Fig. 2.—Lateral roentgenogram of F. M. Case 2.

Fig. 3.—Incision made on a cadaver to illustrate approach used in Case 1.

diagnosis obvious. A lateral x-ray plate discloses the shadow of the hiatus between the ligament ends. The abnormally high patella may also be of some help in diagnosis. Rupture of the quadriceps tendon is excluded by the location of the tender hiatus distal to the patella, rather than proximal to it. The x-ray rules out any question of a fractured patella.

Novocain injected into the infrapatellar ligament might be used as a diagnostic aid in a manner similar to that of Haldeman and Soto-Hall for ruptures of the supraspinatus muscle. Should active extension of the knee be possible after the injection, one may assume the infrapatellar ligament to be intact.

Treatment consists of repair of the torn ligament by suture. Should the ligament be frayed out at the tear, autogenous fascia lata could serve as an efficient bridge for the gap.

San Francisco Hospital.

Fig. 4.—Range of active motion in J. T., Case 1; six months after operation.

HEMORRHAGIC PANCREATITIS FOLLOWING THYROIDECTOMY*

By L. J. Gogol, M.D.
Los Angeles

ONE may say, of course, as appears likely, that the development of acute pancreatic necrosis immediately following a subtotal thyroidectomy in a hyperthyroid patient was merely coincidental. However, acute pancreatic necrosis is most commonly seen in the obese hypothyroid type of individual, rather than in the thin hyperthyroid. A search through the literature has revealed that its occurrence following thyroidectomy is quite rare.

The only other case noted is that of W. R. Morris[1] in which, fifteen hours following the removal of a large substernal adenomatous goiter in a decompensated female of fifty-six years, the patient complained of marked abdominal pain and vomiting, presenting a very tender abdomen. All symptoms increased in severity, shock followed and the patient died thirty-eight hours after surgery. Autopsy revealed fat necrosis of the pancreas, mesentery and retroperitoneal tissue, thrombosis of the intrapancreatic veins, and necrosis of the pancreatic ducts. The impression given was that the pancreatic lesion was on a vascular basis, due to intrapancreatic venous thrombosis.

In the case to be discussed there was no question of cardiac decompensation; the patient was definitely a hyperthyroid, and the acute pancreatic lesion apparently developed at the time of, or immediately following, surgery.

REPORT OF CASE

The patient, a young man of twenty-eight, employed as a foundry laborer, entered the hospital March 20, 1936, with the following complaints: nervousness, palpitation of the heart, and loss of weight. Nervousness had come on about two years previously, and with cardiac consciousness and tremor of fingers had become progressively worse. He had lost approximately twenty pounds in weight during the past year, in spite of a good appetite.

Physical Examination.—On physical examination he appeared quite restless and thin. There was a definite staring expression to his eyes, and a fine tremor of tongue and fingers was noticed.

The thyroid gland was diffusely enlarged, smooth, and firm. The heart beat was quite forceful, blood pressure 138/60, heart rhythm regular, and the rate ranged from 96 to 108. The abdomen was negative. There was no sugar in the urine, and the basal metabolic rating was plus 49.

The patient's symptoms improved with bed rest, sedation, and Lugol's (gtts. V. t. i. d.), and on April 1, ten days after admission, subtotal thyroidectomy was performed under cyclopropane anesthesia.

Postoperative Course.—The operation ran smoothly; at its close, while the skin clips were being inserted, the patient began to vomit. Within a few minutes he began to complain bitterly of pain in the pit of the stomach. There was exquisite tenderness in the epigastrium, with almost board-like rigidity of both upper recti. Pain and vomiting became more severe. Morphin did not relieve the pain, the pulse became quite rapid, and signs of shock and circulatory collapse followed within two hours. The pulse mounted to 160 to 200, and blood pressure dropped to a systolic of 60.

The skin became cyanotic and there was profuse perspiration. The temperature steadily rose until it was 107 degrees Fahrenheit at his death. Acacia solution, adrenalin, and other stimulants could not elevate his systolic pressure over 80. The diagnosis of acute pancreatitis was considered likely before death, which occurred thirty hours after surgery.

Autopsy.—At autopsy the region of the thyroidectomy showed no abnormalities. The peritoneal cavity contained about 100 cubic centimeters of burgundy-colored fluid. The external capsule of the pancreas contained areas of recent hemorrhage and fat necrosis, as did other retroperitoneal tissue. The gall bladder and bile ducts were normal. There was complete hemorrhagic necrosis with softening and partial liquefaction of the head of the pancreas and adjoining part of the body.

COMMENT

The relationship between the thyroid gland and the pancreas is still more or less obscure. It is known that increased function of the thyroid gland depresses or inhibits pancreatic activity. This is evidenced by a diminished carbohydrate tolerance in Graves's disease. Removal of the thyroid gland seems to render the pancreas hyperactive. In myxedema large quantities of sugar may be injected without producing glycosuria.

That there is a disturbed carbohydrate metabolism in thyroid disease is seen also by the incidence of diabetes mellitus associated with hyperthyroidism. In both diseases one may find hyperglycemia, glycosuria, marked wasting of the body, polyuria, fatty stools, and excessive hunger and thirst. It has been suggested in the past[2] that uncontrollable diabetics be subjected to a thyroidectomy.

Experimentally, it has been shown[3] that feeding thyroid tissue to the rat has resulted in a decrease in size of the pancreatic alveoli and alveolar cells, a variation in size and staining power of the nuclei, and an increase in mitotic figure. These changes disappear on withholding thyroid.

Postmortem examination of the pancreas[4] in cases of hyperthyroidism has revealed atrophy of Langerhans' islet with leukocyte infiltration and areas of necrosis.

All this does not give any direct explanation for the case above described, which is, however, presented as additional suggestive evidence of disturbed pancreatic function in thyroid disease.

1930 Wilshire Boulevard.

* From the Surgical Service of the Los Angeles County Hospital.

1 Morris, W. R.: J. A. M. A., 100:1594 (May 20), 1933.

2 Fitz, R.: Arch. Int. Med. Vol. 305 (March 15), 1921.

3 Kojina, M.: Quart. Janon Exper. Physical, London, 1:222, 1917.

4 Pettenvel: Quoted in Hertzler, "Diseases of Thyroid Gland."

Public interest in hygiene and health can be made effective only when it can be concentrated in the carrying out of a definite plan. Our attention is now being focused on the control of causes of mortality of persons not only among the younger groups, including babies and children, but among adults who should be in their physical prime. The mortality of persons who ought to be in full mental vigor and still capable of many kinds of physical work is over three times that of the younger adults. Organic heart disease, tuberculosis, cancer, and pneumonia account for more than half of the deaths between the ages of thirty-five and forty-four—an age period too young for the vital spark to be dimmed. We should no longer squander the vitality of our grown men and women. The task of health conservation is being broadened in this State to include adults as well as children.—Governor H. H. Lehman of New York.

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

ACUTE SACROILIAC STRAIN

I. ETIOLOGY

Rodney F. Atsatt, M.D., (1421 State Street, Santa Barbara).—From an etiological standpoint an acute sacroiliac strain is nearly always an accident. It may be from external violence, as in a fall or forcible twisting, or it may be from internal stresses such as are experienced in lifting or arising from a flexed position. Occasionally, the strain is gradual in onset.

SPECIAL FACTORS:

External Violence.—The fall which causes a fracture of the hip often also initiates a sacroiliac strain, and the accompanying sciatica often persists long after the hip is healed. The simple fall in industrial occupations is often complicated by such a strain as is also the fall from a height. The all-too frequent automobile accident is productive of twisting strains which often find localization in this vulnerable joint.

Internal Violence.—The stresses which produce the strain in this manner are omipresent. It is practically as easy to sustain an acute strain in picking up a pin as in lifting a fifty-pound barrel. No matter what the effort, if the interplay of muscle balance is "off key," so to speak, a sudden pain located in the mid or unilateral low-back announces an acute sacroiliac strain.

Gradual Onset.—This type comes on late, usually as the result of repeated small traumata or the maintenance of an awkward or unusual position for long periods of time. The "foot throttle sacroiliac" is an example of this type.

GENERAL FACTORS:

The age incidence varies from early adolescence to old age—from eight to eighty. The two decades, from twenty to forty, furnish most of the cases, for earlier, the ligaments are more elastic and later the joint is often ankylosed.

The race incidence depends upon the locality and type of practice, as industrial laborers make up a good share of the acute cases.

The sex incidence shows an interesting grouping. There are distinctly more women patients in the well-to-do class, while in the working class the men predominate.

PREDISPOSING FACTORS:

Spina bifida of the sacrum offers poor attachment for the heavy supportive sacroiliac ligaments.

A long torso with thick vertebral segments, or six lumbar vertebrae, gives opportunity for tremendous leverage on the sacrum below the axis of the joint.

A horizontal sacrum with deep lumbar lordosis is also a poor mechanical base, as the stress of arising from a flexed position is again centered below the axis of the joint.

An asymmetrical pelvis or a pelvis tilted by a short leg produces a constant potential shearing force across the attending sacroiliacs.

A relaxed pelvis from pregnancy or long-continued bed confinement is often strained by the initial attempt at arising or weight-bearing. Both the muscles and ligaments have lost tone under these conditions.

A preëxisting arthritis resultant from earlier strains or from general causes such as focal infection, intestinal toxemia or metabolic imbalance may so set the stage for an acute strain that some very simple act will precipitate an attack.

PRACTICAL CONSIDERATIONS:

The occasional lifting of heavy objects requires a proper lifting technique.

The sudden darting forward and sideward for a fallen object should be accomplished with circumspection.

Pregnancy, or long periods of bed rest, should be followed by appropriate exercises before weight bearing.

* * *

II. SYMPTOMS AND DIAGNOSIS

Samuel S. Mathews, M.D. (1913 Wilshire Boulevard, Los Angeles).—One must bear in mind that the sacroiliac joint is subject to the same condition as any other joint, neoplasm, inflammation or trauma. Of course at this time we are only interested in trauma. In a great majority of cases it is a simple matter to differentiate between symptoms arising from lesions affecting the sacroiliac joint and those associated with the lumbo-sacral strain. This differential diagnosis should be made by a careful history and an equally careful examination. The symptoms of acute sacroiliac strain are more or less constant, realizing, of course, that the severity and acuteness of the strain have a marked bearing upon the severity of the pain in the joint and upon the symptoms present. The patient always complains of pain in the region of the low back, more marked on the affected side being made worse by the slightest movements either in the act of walking, sitting or standing. The pain, although general in nature across the sacral region, is localized over the involved joint followed by a referred pain down the posterior aspect of the thigh and calf to terminate in the lateral side of the ankle. Occasionally the pain follows the course of the obturator nerve, to find its termination along the inner side of the knee, although this is exceptional. Because of the existing muscle spasm in the low back the patient is then unable to bend or lift. He is unable to go upstairs without dragging the

affected side with each step. He usually sits on the opposite buttock, thus avoiding transmission of weight to the injured side and protecting the sensitive sciatic nerve. On recumbency he avoids lying on the involved side because of the increase of symptoms in so doing, relief being obtained in most instances by lying on the back with the thigh flexed on the abdomen. He stands in a slightly-stooped position bearing his weight on the unaffected side, with the knee on the affected side in slight flexion, thus seeking to spare the affected joint.

To demonstrate the existing limitation of motion in the back one must compare it with limitation of motion due to lumbo-sacral condition. In acute sacroiliac strain the patient is apt to bend forward first by flexing the lumbar spine and then tilting the pelvis until the hamstrings become taut. At this point he either stoops because of the pain, or flexes the knee on the involved side to relax the hamstrings. In lumbo-sacral conditions, muscle spasm is apt to keep the lumbo-sacral region rigid, and forward bending takes place at the hips and the upper lumber and dorsal regions. On sitting he is able to bend forward freely in view of the fact the hamstrings are relaxed. In lumbo-sacral cases attempt at flexion of the trunk in a sitting position is as difficult as in the standing position. On passive flexion of the hips on the pelvis, the pelvis moves as a whole, and is unaccompanied by pain due to elimination of muscle leverage. In a lumbo-sacral condition this maneuver is productive of pain and it is impossible to flex the lumbar spine.

Pain is elicited on deep pressure over the involved joint or under the gluteal fold in the region of the sacro sciatic ligaments. Lateral pressure of the pelvis often causes pain on the affected side. Straight leg-raising is limited on the involved side, and when carried beyond this point of limitation, the patient complains of pain in the region of the joint and along the posterior aspect of the thigh. The heel to knee test is positive, thus helping to differentiate it from lumbo-sacral sprain. The patellar reflex may or may not be increased. X-rays of the pelvis are of no particular value other than ruling out other conditions, such as fractures or neoplasms.

* * *

III. TREATMENT

Horace C. Pitkin, M.D. (909 Hyde Street, San Francisco).—In any joint, motion normally is limited by ligaments, or by tendons (like the patellar tendon) that act as ligaments. Any force that tends to produce motion beyond the normal range may cause one or more of the following injuries:

1. An acute strain, in which the motion is checked by reflex muscular action before the ligaments actually are torn.

2. A sprain, in which the tear may involve only a few fibers of a ligament, an entire ligament, or even a group of ligaments.

3. A subluxation, with which a sprain always is associated (except in recurrent subluxations).

4. A dislocation, with which a complete, ligamentous tear always is associated.

5. A fracture.

The scope of this discussion is limited to the treatment of the first two listed injuries. However, it should be stated that the subsequent treatment of a dislocation, or of a subluxation that has been accurately reduced, is essentially identical with the treatment of a simple sprain.

In any joint, a strain or a sprain is accompanied by a varying amout of effusion into the injured ligaments and by a varying degree of acute traumatic arthritis. In superficial joints, these changes are apparent to inspection and to palpation, but they rarely are appreciable in the sacroiliac joints. Any sudden increase in the tension of a ligament produces a protective, reflex muscular contraction, whereas a gradual or prolonged increase in tension results in reflex muscular relaxation. Similarly, strains or minor tears of ligaments produce reflex muscular spasm, but complete tears result in reflex muscular relaxation and atrophy. The ligamentous support of the sacroiliac joints is very strong, and complete tears are relatively uncommon. Therefore, sprains of the sacroiliac joints almost invariably produce reflex muscular spasm.

In any joint, muscular spasm produces a characteristic "protective" attitude, and the type of the attitude is determined by the actions of the muscles that are overstimulated. Since the actions of the muscles that control the position of the sacroiliac joints also affect the postural balance of the spine, the characteristic attitude that is produced by every type of sacroiliac dysfunction is a lateral spinal curvature. This scoliosis is present in the standing position, but frequently disappears in recumbency. Irritation of any ligament or group of ligaments elicits a characteristic muscular response that depends upon the innervation of the affected ligaments. Therefore, the scoliotic patterns that are caused by acute sacroiliac strains and sprains are merely reflections of the type and the degree of the ligamentous involvement. Furthermore, the disappearance of the scoliotic pattern mirrors efficient treatment just as accurately as does the disappearance of ecchymosis and edema from more superficial joints. Thus, the scoliotic pattern theoretically should be a most reliable guide to the treatment of these conditions, in fact, it is *the* most reliable guide.

Only two patterns of scoliosis are produced by uncomplicated sacroiliac sprains or strains:

1. The "single transitional pattern," which is a total scoliosis with a list of the trunk toward the concavity of the curve and a rotation, both of the shoulder-girdle and of the pelvic girdle, toward the convexity of the curve.

2. The "double transitional pattern," which is an S-shaped scoliosis with a list of the trunk and a rotation of the pelvic girdle toward the concavity of the lumbar curve, but with a rotation of the shoulder-girdle toward the concavity of the dorsal curve.

Both patterns are simple reflections of unequal muscular spasm without displacement of the sacroiliac joints. The single transitional pattern of sacroiliac origin indicates that the normal stability of the joints has been preserved, since it is found in uncomplicated sacroiliac arthritis, in simple

strains, and in minor sprains. The double transitional pattern of sacroiliac origin is produced only when the joints are structurally unstable; consequently, it reflects the presence of a severe sprain or ligamentous relaxation. All other patterns of sacroiliac origin are indicative of a slip, of a dislocation, or of a fracture, and each of these demands manipulative reduction. When reduction is complete, the scoliosis changes to one of the transitional patterns, or to an incomplete pattern. For a more exhaustive discussion of this entire subject, the reader's attention is invited to the series of five articles which the author recently has published in *The Journal of Bone and Joint Surgery* (Vol. XVIII, Nos. 1, 2, 3, and 4; Vol. XIX, No. 1, 1936-1937), under the title of "Sacrarthrogenetic Telalgia."

In any joint, a sprained ligament normally heals in from three to six weeks. When healing is complete, cicatricial contraction restores the normal ligamentous tension. If a ligament becomes lengthened, because the torn surfaces are allowed to remain distracted during the process of healing, the results are abnormal arthral mobility and a tendency toward recurrent subluxations. If a ligament becomes shortened, because of persistent edema and excessive scarring, the results are limitation of arthral mobility and a tendency toward recurrent strains or sprains. Therefore, rational treatment demands that the injured ligament be supported in the position which will promote healing with the minimum of scarring, and that it be protected from additional injury until it is healed.

In acute cases that show the single transitional scoliosis of sacroiliac origin, the stability of the joints is preserved, and a pelvic belt of adhesive strapping usually provides a satisfactory support. However, the efficiency of any support is best judged by observing its effect upon the scoliosis. A support is insufficient unless it eliminates the lateral curvature, the list, the rotation of the shoulder-girdle, or the rotation of the pelvic girdle, and a truly satisfactory support should eliminate at least two of these factors. When the acute stage has passed (varying from three days to three weeks), as judged by the degree of the scoliosis, a leather or canvas sacroiliac belt may be substituted for the adhesive strapping. This belt should be worn for at least two months, even though the patient is completely free from symptoms.

In all cases in which the single transitional scoliosis cannot be controlled and in any case that shows the double transitional scoliosis of sacroiliac origin the patient should be put to bed. Unless a firm bed is used, boards should be placed beneath the mattress. Depending upon the size and the muscular development of the individual, from ten to fifteen pounds of adhesive traction should be applied to each lower extremity to relax the muscular spasm and to restore the symmetrical alignment of the injured joints. Since unilateral traction tends to distort the pelvic alignment, the weight on the two extremities always should be equal. The traction may be discontinued when the patient has been free from pain for forty-eight hours. If the patient remains free from pain for forty-eight hours after the release of the traction, he may be allowed to stand out of bed for reëxamination, but he should not be allowed to be up and about until his scoliosis can be controlled by a pelvic support.

In the past, all treatment of sacroiliac dysfunction has been largely empirical, because there were no consistently accurate, objective criteria by which it could be determined definitely that the joints were correctly or incorrectly aligned. A pelvic support applied to an unreduced sacroiliac slip perpetuates the deformity and tends to prevent a spontaneous reduction. To manipulatively reduce a sacroiliac slip, and then to allow the associated sprain to remain unsupported, obviously courts a recurrence. Heat, massage, and repeated manipulation, when applied to a relaxed joint, only serve to increase the relaxation. Nevertheless, these common therapeutic errors cannot be avoided unless treatment is continually controlled by accurate methods of diagnosis. By the recognition of the transitional scoliotic patterns of sacroiliac origin, and by the use of the information that they convey, the familiar, fundamental principles that are used in the treatment of acute strains and sprains in any superficial weight-bearing joint can be applied intelligently to the sacroiliac joints.

Swimming and the Ears.—Healthy ears need not be above water because their outer canals are lined by skin, and water in moderation will not injure skin. It will, however, swell up any fibrous or waxy material in the external ear canals and produce pressure and temporary deafness. It may infect the middle ear if there is a hole in the ear-drum. A tightly fitting cotton ear plug saturated with vaselin will prevent water from entering the ear, but such a plug will also prevent much sound from entering the ear. Therefore, do not use it if you are in a place where you need all your hearing to protect you from harm.

The reason that swimming may cause harm even to the healthy ear is that infectious material which gets into the back of the nose near the opening of the eustachian tube may be sucked in whenever the middle ear becomes deflated, following forcible snuffling or swallowing with the nose closed in any way. The middle ear then acts like a rubber ball squeezed under water; when the vacuum is released, anything near the tubal opening will be sucked up toward the ear.

This is the way in which infectious material in your own nose, or from the noses of others in the sea, lake, or swimming pool, may be drawn into the ear. All noses contain bacteria and there are many diseased noses which harbor them in larger numbers, so that those who do the snuffling and nose blowing in the water are apt to be the ones who suffer most. Anyone with an infection of the ears or nose or of any part of the body, is a potential source of danger to self and to others. All such should be prohibited from bathing near other people. Swimming pools are often little better than septic tanks because of failure to prohibit bathing by those with nose, throat, ear, and other infections.

Holding the nose only prevents water from going into the nostrils, but does not prevent the partial vacuum in the back of the nose and often in the middle ear following swallowing.

It is impossible to keep the nose above water when using the crawl stroke or in diving. The old breast stroke is the safest because the head is forward or erect and the tubes to the ears are more nearly vertical and dependent, so that in this position nothing can be forced into them against the retained column of air.

Swollen membranes may act like a ball valve, once a partial vacuum has been established in the middle ear. Nature then fills the cavity with that ideal culture medium, the serum of the blood. This, when infected, becomes an abscess in the ear.—Edmund Prince Fowler, M.D., President, American Society for the Hard of Hearing.

CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section on pages 2, 4 and 6.

CALIFORNIA MEDICAL ASSOCIATION

HOWARD MORROW.....President
WILLIAM W. ROBLEE.....President-Elect
LOWELL S. GOIN.....Speaker
MORTON R. GIBBONS.....Council Chairman
FREDERICK C. WARNSHUIS.....Secretary-Treasurer

THIS MONTH'S TOPICS*

ASSOCIATION ACTIVITIES

1. *Medical California—Some Pertinent Facts.*
2. *Sudden Death.*
3. *1938 Medical Meetings Scheduled for San Francisco.*
4. *Profession or "a Job"?*
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DEPARTMENT OF PUBLIC RELATIONS

1. *Still Being Killed.*
2. *Public Health Education.*

ASSOCIATION ACTIVITIES

MEDICAL CALIFORNIA—SOME PERTINENT FACTS

As one delves into the records certain outstanding facts are revealed that are related to medical organization and activity in California. It is well to pause at times to ponder over them and at the same time find justifiable satisfaction in that which is recorded. The data quoted was obtained from the State Chamber of Commerce, Board of Medical Examiners, American Medical Association Directory, and Association files.

California has 155,652 square miles of territory and is the second largest state in the Union. Texas is the largest, with 262,398 square miles. The "Big Ten" states are: Texas, California, Montana, 146,131 square miles; Arizona, 113,810 square miles; Colorado, 103,658 square miles; Wyoming, 97,548 square miles; Oregon, 95,607 square miles; Idaho, 83,354 square miles; Utah, 82,184 square miles; Kansas, 81,774 square miles.

California equals the combined area of the states of New York, Massachusetts, Pennsylvania, Indiana, New Jersey, Rhode Island, and Maryland, with their combined area of 155,497 square miles. Or Illinois, Ohio, Wisconsin, and Connecticut. Or Indiana, Ohio, Michigan, and two-thirds of Illinois. A number of similar combination of states can be made to form comparative scales of land area that total the area of California.

As to councilor districts, the First District is equal to the area of Indiana or Ohio, or one-half of Mississippi, or South Carolina, or one-half of the State of Washington. The Eighth Councilor District equals one-half of either Iowa, Michigan, or Illinois. Kern County is equal to the State of Massachusetts. There are similar combinations that can be made from the table of the following councilor districts and county areas which also impart population, physicians, and members.

* All articles listed under the caption, "This Month's Topics," have been written and sent to the Editor by the Association Secretary, Dr. Frederick C. Warnshuis.

CALIFORNIA MEDICAL ASSOCIATION

1936 Membership by Councilor Districts

First District—Calvert L. Emmons, Councilor

Population—766,960. Area—Square Miles—36,376.

	Members	Physicians	Area Square Miles	Population
Imperial	27	35	3,924	76,070
Orange	109	161	795	129,479
Riverside	69	113	7,300	110,030
San Bernardino	137	189	20,157	171,770
San Diego	258	415	4,200	279,620
Total	600	753		

Second District—Carl R. Howson, Councilor

Population—2,555,040. Area—Square Miles—4,115.

Los Angeles ..... 2,200 members 4,162 physicians

Third District—Louis A. Packard, Councilor

Population—290,580. Area—Square Miles—15,800.

	Members	Physicians	Area Square Miles	Population
Kern	48	86	8,003	106,130
San Luis Obispo	29	36	3,284	33,910
Santa Barbara	102	125	2,630	81,920
Ventura	35	55	1,883	88,620
Total	214	302		

Fourth District—Axcel E. Anderson, Councilor

Population—506,904. Area—Square Miles—17,042

	Members	Physicians	Area Square Miles	Population
San Joaquin	98	115	1,448	120,470
Fresno	112	159	5,950	157,430
Kings	15	24	1,390	29,860
Merced	28	28	1,905	43,670
Stanislaus	40	60	1,486	66,060
Tulare	38	61	4,863	89,450
Total	331	447		
*Madera		16		
*Inyo		9		
*Mono		1		
*Mariposa		4		
*Tuolumne		13		
*Calaveras		8		

* No medical societies, resident doctors affiliated with adjacent county societies.

Fifth District—Alfred L. Phillips, Councilor

Population—387,070. Area—Square Miles—7,556.

	Members	Physicians	Area Square Miles	Population
Monterey	51	81	3,860	75,330
San Benito	7	11	1,476	11,380
San Mateo	58	99	447	93,070
Santa Clara	171	259	1,305	161,570
Santa Cruz	30	52	468	45,720
Total	317	502		

Sixth District—Karl L. Schaupp, Councilor

Population—673,080 Area—Square Miles—42.19.

San Francisco ..... 812 members 1,631 physicians

Seventh District—Oliver D. Hamlin, Councilor

Population—605,780. Area—Square Miles—1,466.

	Members	Physicians	Area Square Miles	Population
Alameda	476	774	732	512,690
Contra Costa	49	74	734	93,090
Total	525	848		

Eighth District—C. E. Schoff, Councilor†

Population—413,960. Area—Square Miles—28,617.

	Members	Physicians	Area Square Miles	Population
Butte	24	38	1,720	40,820
Yolo-Colusa-Glenn	26	41	3,283	50,680
Lassen-Plumas-Modoc	11	32	7,628	28,920
Placer	30	32	1,411	28,530
Sacramento	143	173	987	163,700
Shasta	15	19	3,858	18,470
Yuba-Sutter	15	25	1,233	33,450
Tehama	11	16	3,200	15,760
Total	275	409		
*Nevada		19		
*Sierra		3		
*Eldorado		7		
*Alpine		0		
*Amador		8		

* Indicates no medical societies, resident doctors affiliated with adjacent county societies.

† Resigned.

* * *

Ninth District—Henry S. Rogers, Councilor

Population—306,550 Area—Square Miles—23,255

	Members	Physicians	Area Square Miles	Population
Humboldt	30	39	3,634	49,500
Marin	40	47	520	46,100
Mendocino-Lake	19	44	4,782	33,970
Napa	34	48	783	24,580
Siskiyou	15	29	6,256	31,110
Solano	26	41	822	44,980
Sonoma	54	79	1,582	65,120
Total	218	327		
*Del Norte		7		
*Trinity		4		

* Indicates no medical societies; resident doctors affiliated with adjacent county societies.

* * *

Members of our Council contribute a tremendous amount of their time, and travel several thousand miles in visiting the county societies in their respective districts. For the past two years, councilors have made one or more visits each year to the societies in their districts, and the President, President-Elect, and the State Secretary have jointly or individually visited each county in attending a State Association night or day meeting. This entailed 20,603 miles of automobile travel, exclusive of train travel. Much credit is given to members, many of whom drive 200 to 300 miles to attend the stated meetings of their county society. Metropolitan members who balk at going two or three miles to attend their local meeting can well take a lesson from these rural members.

The Board of Medical Examiners report 9,442 licensed physicians and surgeons residing in California in 1936. There is no information on file as to how many are retired or engage in limited practice. From county secretaries reports it is estimated that there are 947 eligible and desirable licensed physicians who are nonmembers. Accepting this figure, then, the maximum membership would be 6,514. In 1936 the Association's membership roster recorded 5,567, which represents 85½ per cent of the eligible physicians in the State.

In the above tabulation it will be noted that in thirteen counties there is no local society. Five of these counties are affiliated with adjacent counties, although the county name does not appear in combination with that county. In the other counties some of the resident physicians hold membership in some near county society. These counties are all in the mountainous regions and travel, especially in the winter, is difficult. It is quite impracticable and futile to expect four to nine doctors to organize a county society in these mountain regions.

In the State, as a whole, there is one member physician to 1,177 inhabitants. One county, Alpine, in the high Sierra, with a population of 570, has no physician.

This résumé, it is hoped, will prove of interest; while not entirely accurate to minute detail, on the whole it presents interesting pertinent facts.

SUDDEN DEATH

Press and obituary notices regularly contain the statement, "died suddenly," "passed away unexpectedly," "died of a sudden heart attack," "died from a sudden stroke"; these are all misstatements. There was nothing "sudden" about the demise of these individuals, for, as Dr. C. H. Mayo stated in a recent article in a lay magazine, "these conditions were months and years in their development to a final termination in death."

Had the individual consulted his medical adviser and submitted to periodic physical examinations, the early onset of conditions would have been detected and with proper care and regulation could have been prevented or life prolonged. The "sudden" element would be caused to yield because of the forewarning.

1938 MEDICAL MEETINGS SCHEDULED FOR SAN FRANCISCO

Just preceding or following the annual session of the American Medical Association, a goodly number of subsidiary and special medical organizations hold their annual meetings in the same city in which the American Medical Association convenes.

Announcements have been made of meetings of the following organizations in San Francisco next June: American Dermatological, Medical Women's Association, Proctologic Society, Psychiatric Association, Radium Society, Association for Study of Internal Secretions, Radiological Society of North America.

Undoubtedly other organizations will announce their meetings in due time.

PROFESSION OR "A JOB"?

The medical profession and those just entering upon a medical career earnestly seek a sound answer to this question. A quarter of a century of yesteryears has brought about conditions and problems that make it difficult to advance a satisfactory answer, let alone substantial predictions. It is believed that the advancement, from time to time, of specific comment and the recording of certain observations may be provocative and bring forth suggestions that will be helpful in the formulation of an acceptable answer.

There are those who contend that the answer will originate from within the profession without outside assistance or governmental dictation. There is grave doubt that such will be the outcome. To make it possible for the medical profession to draft the final answer it is necessary to bring about two or three very definite concepts in the minds and attitude of every medical man. Until this is accomplished there can be no hope that the true answer will be written.

Fundamental and most vital is a universal acceptance and willingness to adhere and conform to the principle of unity of purpose and action. Personal quests and ambitions as well as individualism must be made to yield and conform.

Leadership—not dictatorship! This can be instituted when chosen representatives delegate authority to selected officers upon whom there are conferred executive powers and duties that are specific and directorial. Those so selected must have the assurance that a united profession places full confidence in them and pledges unswerving support in their execution of the principles and the application of the policies that have been formulated by the chosen delegates of our federacy.

Our efforts in the past have been minimized and negatived by a failure to recognize this vital essential.

Failure and complete defeat will be encountered unless organizational units are purged of members with individualistic quests and ambitions who seek to speak for our units without having been vested with that power or authority to represent the organization.

In matters of policy and representation, constituent state and county units must take no official action that is at variance with the national policy. When differences of opinions arise, or there is disagreement as to procedure, these questions should be discussed and agreement brought about within the walls of our own session rooms and not before the public. The profession must always appear before the public in a united front and in full accord. Majority decisions must supersede individual and minority ambitions. Minority propaganda must be abandoned. Nonacceptance of this principle should be met by excluding the non-

conformist from all of our deliberations. The declaration that "A people without vision shall perish" is applicable to the profession of medicine and the units that constitute the federacy of American medicine.

There have been occasions, and all too frequent, when members of the profession holding positions of prominence and honor, as well as being recognized for their professional skill and acumen, have, in public addresses or interviews, ventured to express their personal views upon trends and the future of medical service and economic principles. Their views often are at wide variance with the opinions and exactments of our legislative and governing body—the House of Delegates. Their statements are frequently at variance with proved facts and compiled information. Proponents for socialized government-controlled medicine, bureau control, and the regimentation of the profession, pounce upon these statements and opinions, give them wide publicity, quote them to refute official declarations, and use them in their propaganda for Government supervision and control of medical care. They are also used in endeavors to convey to the public that, as an organization, we are a "house divided." Incalculable harm is inflicted by these individual and unofficial spokesmen.

Just recently there has been published an address delivered by a man of high professional attainments. Two quotations are lifted:

Changes in mode of practice and in obtaining a professional living by the individual are truly predicated on mass change in government and in social outlook or point of view. Only scant suggestions of what might happen socially and economically in 1937 were presented to the physician of twenty-five years ago.

It is quite apparent that the speaker has neglected to become informed and has no knowledge of the reports, studies, and resolutions presented in the American Medical Association House of Delegates and the many editorials and comments that have appeared in regular sequence in many national and state medical journals. Medical men have been told and warned time and time again of movements initiated and expanding that had as their purpose the regimentation of doctors and lay control of practice. This speaker, like thousands of his confréres, was apparently so engrossed in his scientific and professional work that scant, if any, attention was paid to the economics of medicine.

Now this speaker twenty-five years later, with more time upon his hands possibly than in years past, suddenly cries forth that he and others were kept in darkness.

The lack of concern during the past thirty-five years on the part of many teachers and practitioners is an underlying factor that has brought about our present acute situation. While they pursued their scientific calling, organized, vocative lay minorities were actively engaged in their socialization quests. A claim that warning was not given cannot be substantiated.

Note the following quotation:

The second trend has to do with the socialization of medicine as a whole. This is an ever menacing terror to many physicians, but I venture to predict that if it comes about that medicine is completely regimented and totally under bureaucratic control, the care of the patient will be adequate, the life of the doctor will be interesting and happy, his income will be sufficient for his needs, and opportunity will not be lacking for the ambitious to advance. To me, and to most doctors, the idea of a future socialized medicine is a step backward . . . We do not believe that it will help the patient and we feel confident that it will destroy professional initiative and self reliance; but most of us know in our hearts that, while methods may change, human nature is usually the same from generation to generation. The will and the ability to enjoy life are inherent in the individual. He will get pleasure, profit and satisfaction out of doing a job well done whether under the eyes of an official or under his own personal supervision.

The "job" is passively accepted even though the job and the worker will drop below our present high standards. Such reasoning and acquiescence hastens regimentation and does much to nullify the studies and work of elected officials to prevent conditions that this speaker is willing to stand by and see imposed on the younger group of medical men.

This is but an example of many similar undermining, discrediting statements that are eagerly taken up by the propagandist.

Now will come the charge of "gag rule" and suppression of opinions and individual thinking. Nothing of the sort is intended. Thinking and forming opinions must be encouraged. Discussions must be stimulated; they are tremendously important. Investigations must be made. All to the end that there shall be formed sound policies of action and representation. But these should be conducted within our own chambers and not in public forums, following which it is anticipated that we shall retire from our council halls and stand before the public as a federacy that is united in policy and purposes that result from majority decisions.

Then, through accredited spokesmen, the decisions reached are to be imparted to the public, accompanied by the statement that they are endorsed and advanced by a united profession. So let medicine and its practitioners speak and act! And ill betide he or she who seeks to discredit or withholds support from this program of unity and action. Whether yours is a profession or a job depends upon collective loyal unity.

YOUR COUNTY AND STATE ORGANIZATION

There are unseen values and personal benefits arising from our medical organizations that cannot be appraised, still they occur to the advantage of every individual and indirectly to society as a whole. The thoughtless do not perceive their nature or the benefits that flow to them from these functions and influences. Every organization that has endured produces these values. So, too, with your county and state medical association. The cultural and intellectual influences extend throughout the profession and exerts a levening effect upon the individual as well as upon the group as a whole. Were it not for these unseen values and influences our individual lives and professional labors would be quite disagreeable and discontented. Too often the individual gives no thought to these forces and plods on, believing that there are self-generating circumstances that are endowed to man by reason of his mere existence. Take them away and he would quickly be aware of their absence and would promptly join the other members of his guild to bring about their reëstablishment.

TO PONDER UPON

We stand upon the intellectual shoulders of those medical giants of bygone days and, because of the help they afford us, we are able to see a little more clearly than they were able to do.—Bernard.

* * *

A thoughtless statement, a slip of the tongue, may inspire some patient to see an attorney and initiate a malpractice suit against you or your neighbor physician who attended the patient. Great care should be exercised in giving opinions, prognosis, and administration of treatment. When in doubt seek competent counsel.

* * *

Department of Commerce studies show that the average automobile-owning family spends about 10 per cent of its income on car operation. Federal, state, and local taxes account for one-third of this expenditure. Of all the families in this country owning automobiles, 90 per cent have incomes of less than $3,000 a year, and almost 60 per cent have incomes of less than $1,500 a year. The automobile is not a rich man's toy! It is easier to induce a family to want and buy a car than it is to cause that family to want and budget for health, preventive medicine, and medical care. Medicine must develop educational salesmanship and enter into direct competition with the automobile, radio, and luxury salesmen. Are you prepared to enlist and serve in this salesman's corps?

* * *

California in size and square miles of area is equal to the area in square miles of Maine, New Hampshire, Vermont, Rhode Island, New York, and New Jersey. The square mile area of these states is 156,095 in comparison with that of California—155,652. These figures are not cited to boast; they are facts that give reasons as to why organizational work entails so many more problems and varying regional conditions than are found in the six states named—problems and conditions that require correlation.

* * *

There are 1,952 physicians and surgeons licensed by the Board of Medical Examiners who reside and practice in

other states. Many of them are graduates of California medical colleges or have served internship in a California hospital. There are 9,590 licentiates residing in California, but no information is at hand to indicate the number in active practice.

" " "

"You can't dream yourself into character—you must hammer and force yourself into one." Just another way of saying that it requires personal initiative and persistent effort to attain success. Apparently many have forgotten this sage advice and expect everything to be handed to them on a silver platter with all the trimmings.

" " "

A guarded tongue, the refraining from criticism, the taking of x-rays, calling consultants, and the keeping of accurate records will reduce the number of malpractice suits by 100 per cent. And then premium rates will also be reduced. Why not comply?

" " "

It is surprising how a half-hour of *daily* reading of some standard text or medical journal will broaden your knowledge. Try it.

" " "

A Better Business representative recently called and presented a list of thirty-seven doctors who had been victimized by this and that fraudulent proposition and scheme within the past sixty days. It was thought that doctors had become wiser and that they were no longer at the top of the "fall guys" list. Apparently not! Warning: Refrain from investing your funds until you have consulted your banker or investment counselor. The glib, smooth promoter and salesman is not an extinct species today.

" " "

"She keeps a grievance like a dog—as soon as one dies she replaces it with another." So do a certain type of members. Delegated committees and officers conscientiously strive to discharge their responsibilities. No matter how well they serve there will always be found certain groups or individuals airing an alleged grievance and complaint.

C. M. A. DEPARTMENT OF PUBLIC RELATIONS†

Still Being Killed

Press reports impart that fatal traffic accidents continue to occur.

To attain lowering of automobile deaths it is absolutely necessary to obtain an observance of all traffic laws by motorists and pedestrians. This must be supplemented by courageous and impartial enforcement of these laws by police and traffic authorities who are charged with the regulation and control of traffic.

The Palo Alto *Times* uncovered the kernel of the problem as it relates to motorists in its editorial:

> As long as there is any individual or group that feels itself immune from traffic laws application and considers safety rules as binding upon other people only, a continuance of the butchery of human beings under automobile wheels on the highway will continue.

The California Safety Council has and is doing a fine service in its efforts to cause motor-vehicle drivers to recognize their responsibilities. They are causing a certain goodly percentage of drivers to observe traffic regulation and laws. There remain, however, a certain percentage of self-sufficient drivers who feel that they are not called upon to obey traffic laws. It is this group that is involved in motor accidents.

The time has come when it is necessary to crash down upon these law-breaking drivers with all the authority and power of police and highway patrolmen. These violators must be shown by arrests and fines or imprisonment that traffic regulations are enforced and that no leniency, favoritism or probation can be obtained, no matter what the position, acquaintance, or influence the violator thinks he possesses. This is factor number one.

The second factor, and of equal importance, is that governing bodies of incorporated cities need to enlarge the number of traffic officers and to direct these officers to rigidly enforce traffic laws. Every violator must be made to face the judge of a traffic or police court. "Drastic, unduly rigid," will be the cry of the violator. "Essential and positively necessary," reply the parents of killed sons, daughters, and relatives. An aroused public opinion is necessary. Parents should arouse their communities and demand and support this police action lest the slaughter continue and their child becomes the next victim. Without public demand and support police regulation will be ineffective.

A third factor is the physical condition of the driver. Traffic officers and courts are aware that there are numerous automobile drivers who are unsafe drivers by reason of physical disabilities and infirmities. Vision defects, mental and nervous degenerative diseases, and other defects, make these individuals unsafe drivers and menaces to pedestrians and other motorists. Their licenses should be revoked. In one large city every traffic-law offender brought into court is caused to undergo a physical examination before the case is heard and sentence pronounced. This procedure has been instrumental in weeding out, by revoking drivers' licenses, many unsafe drivers because of vision defects, color blindness, mental incompetency, and physical defects.

Traffic courts in California would render additional aid in the prevention of deaths if they would adopt this preventive measure.

Community courage will go far in reducing the traffic fatalities.

Public Health Education

"The medical profession came into being to keep people well. It did not, as commonly supposed, come into being to cure disease. Public health activities and public health education of the people can never rest for long at greater heights than the level of average human health intelligence. It follows that as this health knowledge of the average person increases, the necessity immediately presses that the members of the medical profession must continue to be aggressively active in the attainment of greater heights lest we be distanced in the march of progress and forfeit leadership. It is the profession's bounden duty to inculcate in the minds of the people, by systematic effort, the progress that is being made in preventive and curative medicine and to impart this knowledge in the centers and outskirts of communal life."

The foregoing was the opening paragraph of a paper presented by the Director of this Department at the annual conference in Chicago some fifteen years ago. It is gratifying to find a reiteration by retiring President Heyd, in an address delivered in Atlantic City this past June. It is hoped that fifteen years hence this same thought will continue to be expressed.

The Committee on Public Relations has as its objectives:

1. Inspiring public confidence and good will.

2. Establishment of unimpeachable motives and causing them to be recognized and accepted by the public.

3. Determination of the needs of the public as regards their health and medical care.

4. Bureau of Public Health information.

Communities, like individuals, inevitably reach a parting of the ways in the course of their lives, and one or two things must happen: either they warp, shrivel up and stagnate in development and eventually become social defectives, to live on the bounties of others; or they grow to strong virile maturity. Lincoln's plea was that: "Our country shall guarantee to all an unfettered start and a fair chance to live." Health education is the most practical expression that is gaining way in the consciousness of the people who see for their children, through sane training, physical, mental, emotional, and social health. Such is the vision of the purposes of health education.

† The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. Charles A. Dukes of Oakland is the chairman, and Dr. F. C. Warnshuis is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. F. C. Warnshuis, Room 2004, Four Fifty Sutter Street, San Francisco.

Toward these objectives and ends, the Committee on Public Relations is exerting its efforts along several avenues that are outlined from time to time in this department. The Committee desires that every county society, every member, and the Woman's Auxiliary, evidence its support and coöperation and respond to such requests as may be made.

COMPONENT COUNTY MEDICAL SOCIETIES

KERN COUNTY

The Kern County Medical Society met in regular session at the Padre Hotel in Bakersfield on Thursday evening, September 16. President H. R. McAllister of Taft called the meeting to order.

Dr. F. C. Warnshuis, Secretary of the California Medical Association, and Mr. Whitmore Walker, District Manager of the Intercoast Hospitalization Insurance Association, were guests.

Dr. Louis A. Packard, Councilor of the Third District, spoke on matters pertaining to the Intercoast Hospitalization Insurance plan which was adopted by the Society at its last meeting. Mr. Walker, representing the organization, clarified several points regarding the operation of the plan in this county.

A motion was carried that the committee, consisting of Drs. Compton, Packard, Strongin, Gundry, and William Moore, would decide on any questions concerning the hospitalization disability plan for the present. It was decided to send a report to California and Western Medicine of all Society meetings.

Doctor Warnshuis gave a talk on the organization and work of the California Medical Association. He stressed the large membership, pointing out that California has the fourth largest society in the United States, and illustrated by means of charts the possibilities for further growth. Legal problems facing the Society, especially antivivisection legislation, were discussed. Doctor Warnshuis emphasized the necessity for the medical profession to be ever on its guard against cultist and other harmful legislation. He paid tribute to the untiring work of Dr. Junius B. Harris during the last State Legislature meeting. Postgraduate training for the practicing physician, under the auspices of the State Society, was discussed. Doctor Warnshuis was of the opinion that each county society should develop speakers from within its own ranks rather than depend too much on guest speakers. He mentioned, briefly, plans for the Hall of Science for the San Francisco Exposition in 1939.

We were sorry that Dr. Howard Morrow was unable to attend.

The meeting was adjourned, following which refreshments were served. C. S. Compton, *Secretary.*

SANTA BARBARA COUNTY

The regular meeting of the Santa Barbara County Medical Society was held at the University Club on Monday evening, September 13, as a dinner meeting, which was attended by about seventy members from our own and adjacent societies.

At the conclusion of the dinner Doctor Richter introduced the speaker of the evening, Dr. Harold Faber, professor of pediatrics, Stanford University.

Doctor Faber's subject was *The Recent Development in Poliomyelitis,* and his talk, illustrated by lantern slides, was most timely and instructive, as evidenced by the attention of the audience and the discussion by the following: Doctors Lamb, Eder, Richter, Atsatt, McGovney, Clark, Brush, Profant, Johnston, Preuss, McNamara, and Koefod.

At the conclusion of the discussion, President Wills introduced Doctor Packard of Bakersfield, the newly elected councilor from this district, who gave a few appropriate remarks.

The Society then went into executive session.

The application of Dr. Adrian Burkard was presented for membership and, after balloting, the President declared Doctor Burkard elected into the Society.

William H. Eaton, *Secretary.*

SAN JOAQUIN COUNTY

The regular meeting of the San Joaquin County Medical Society was held in the Medico-Dental clubrooms, Stockton, September 2.

Doctors Eccleston, Leiske, Augspurger, and Gotande were reported on favorably by the Membership Committee, and there being no objection from the floor they were declared members of the Society.

Dr. C. A. Broaddus presented a report on the activities of the Postgraduate Committee and outlined the program to be presented this fall.

The papers of the evening were presented by Dr. John L. Lohse of Oakland, who gave an illustrated talk on *Principles Involving the Treatment of Carcinoma of the Breast,* and Dr. P. N. Jacobson of Oakland, who presented an illustrated paper on *Urological Studies in the Differential Diagnosis of Abdominal Disease.* Both papers were ably presented and drew considerable discussion from the floor.

There being no further business to come before the Society the meeting was declared adjourned at ten o'clock and refreshments were served.

G. H. Roihbacker, *Secretary.*

CHANGES IN MEMBERSHIP

New Members (15)

Humboldt County

Maurice J. Hoilien

Los Angeles County

Melton B. Burns — Melville L. Jacobs
J. S. Druckman — Bernard Lavine

Monterey County

Raymond V. Rukke

Placer County

Emmeline F. Banks

San Bernardino County

Chris. W. Hartsough, Jr. — Cecil W. Hoff

San Joaquin County

Elmer D. Augspurger — Wilfred I. Gotanda
John O. Eccleston — S. W. Leiske

San Mateo County

Kenneth V. Francis — Alphonso O. Skancky

In Memoriam

Attwood, William Gillispie. Died at Los Angeles, July 14, 1937, age 59. Graduate of the University Medical College of Kansas City, 1906. Licensed in California in 1923. Doctor Attwood was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

Barlow, Walter Jarvis. Died at Sierra Madre, September 4. 1937, age 69. Graduate of Columbia University College of Physicians and Surgeons, New York, 1892. Licensed in California in 1895. Doctor Barlow was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

Kern, Bert Chamberlain. Died at Sacramento, September 5, 1937, age 56. Graduate of Washington University School of Medicine, St. Louis, 1905. Licensed in California in 1918. Doctor Kern was a member of the Sacramento Society for Medical Improvement, the California Medical Association, and a Fellow of the American Medical Association.

Miller, Harold Austin. Died at Alameda, August 13, 1937, age 63. Graduate of Cooper Medical College, San Francisco, 1903, and licensed in California the same year. Doctor Miller was a member of the Alameda County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

Newmark, Philip. Died at Los Angeles, August 20, 1937, age 69. Graduate of Friedrich Wilhelms Universität, Berlin, 1891. Licensed in California in 1897. Doctor Newmark was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

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Roth, George Henry. Died at Los Angeles, August 22, 1937, age 60. Graduate of the College of Physicians and Surgeons, San Francisco, 1909. Licensed in California in 1911. Doctor Roth was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

OBITUARIES

Walter Jarvis Barlow
1868–1937

Dr. Walter Jarvis Barlow died on September 4, at his home in Sierra Madre, where he had been ill with carcinoma of the lung for six months. He was sixty-nine years of age.

After graduating from the College of Physicians and Surgeons, Columbia University, he served an internship at Mount Sinai Hospital, in New York City, and took postgraduate work at Sloane Maternity Hospital. There he developed pulmonary tuberculosis, for which he went to Denver, Colorado, for a short period. and then, in 1895, came to California. He commenced the practice of medicine in Los Angeles in 1897, and was one of the few men in the West at that time to devote himself exclusively to internal medicine. Following his own recovery from tuberculosis, from which he obtained a permanent cure, he became especially interested in diseases of the chest, and rapidly acquired an eminent position as a specialist in pulmonary tuberculosis. In 1904 he founded the Barlow Sanatorium as a charitable institution for curable patients having pulmonary tuberculosis, but with moderate means and unable to finance the long program of inactivity so essential to their recovery. This sanatorium, continuously under Doctor Barlow's supervision, has steadily grown; Doctor Barlow becoming personally responsible for the acquisition of a generous endowment fund which has permitted the institution to expand to a hundred beds, with all the facilities and equipment demanded by a modern tuberculosis sanatorium.

Doctor Barlow also founded and donated the building for a medical library in Los Angeles. This property he gave to the Los Angeles Medical Department of the University of California, of which institution he served as professor of clinical medicine for many years, and as dean during the years 1908-1914. In 1934 the publications in the Barlow Medical Library were transferred to the Los Angeles County Medical Association, and its books and periodicals came to form the nucleus from which the County Society's library is now expanding.

Doctor Barlow had a large personal and consulting practice, but found time to interest himself in the improvement of the artistic and musical life of his city. For years he served as a director of the Los Angeles Philharmonic Society, and he was a generous contributor of time and means to many philanthropic endeavors.

Many professional honors had come to him. He had served as president of the Los Angeles County Medical Association and the California Tuberculosis Association, and as vice-president of the National Tuberculosis Association. In 1912-1913 he was chairman of the Practice of Medicine Section of the American Medical Association. He had long been a member of the American Climatological Association. Doctor Barlow was twice given an honorary degree from his Alma Mater, Columbia University—Master of Arts in 1919 and Doctor of Science in 1929.

This short biographical note gives some idea of the active and varied life which Doctor Barlow led since his onset into the practice of medicine. However, no such bare recital can give any conception of his rare personality. Possessed with an extraordinary affection for people and an understanding of their problems and troubles—both personal as well as physician—he had the unusual facility of receiving their complete confidence, through that and assisting them in the solution of all sorts of problems. His buoyant manner and personal charm gave an anchor of strength and courage to countless sufferers for whom life looked so dark. Few men have done so much for the advancement of medicine in Southern California; and the influence Doctor Barlow has had on the lives and happiness of thousands of individuals in his community, it is not possible to estimate.

* * *

There was something tragic, in the early days after Koch's discovery of the tubercle bacillus, that, just when folks felt the door was to be opened with knowledge gained by the discovery, so many brilliant young physicians' lives became part of the very thing it was hoped to help others to escape. No one can ever measure what Trudeau's gallant fight at Saranac had done to revive great numbers who needed such hope and help in the early 90's.

Doctor Barlow had just finished his medical course at Columbia, and while working in the laboratory at Mount Sinai Hospital must have received a massive tuberculosis infection. Finally, without telling his family what was the difficulty, he followed the migration West, since climate was supposed to be the principal factor in recovery in those days. At San Diego his first California friendships began. Such a thing as a rest cure was unheard of, and he became a member of a household of gay young people. Only last year I looked at the photographs of a "ghost party" and saw his tall, thin figure standing out far more realistic than he perhaps intended, for he was very ill.

When Doctor Barlow recovered and came to Los Angeles to begin his private practice, it was again as if the story at Saranac was being reacted, only under a different setting. . . .

Los Angeles in those days had no place where people could go, but the city permitted the couple to build in Chavez Ravine, and in the beginning the shack type of construction then used everywhere to house the tuberculous was used. As the years went by, aided by the Doctor's rich patients, and with funds secured every year from the great lawn fete's, new buildings of a permanent character were added. There are now beautiful four-bed cottages, a recreation hall, a library erected by the Optimist Club of Los Angeles, cottages built by the Shriners, and friends who had lost some loved one. . . .

When Olive View was built, Doctor Barlow was greatly relieved, for he wanted the Barlow Sanatorium to be used by patients who, because of lack of funds, could not enter a private sanatorium, nor because they were not on relief could they enter a public institution. So at last, after years of striving and waiting, he was able to take young physicians, medical students, teachers, and many others, and give them the best of scientific care. . . .

When the California Tuberculosis Association in 1914 began to organize its work in the State, he was untiring in his efforts to help. He served, as president, two terms, aiding financially, but doing far more in lending encourage-

ment. When the effort was made, just before our entrance into the World War, to control the influx of migratory consumptives into the State, he offered help and advice with constant caution to avoid injustice. Then when at last we entered the war and he was not well enough to go overseas, he gave himself to every agency needing care and advice, particularly to the American Red Cross, and the state and local tuberculosis associations. He worked incessantly during the influenza epidemic in 1918, and when the war was over and there were few places in California for the returning ex-service men to go if they had tuberculosis, the Barlow Sanatorium opened its doors to them. He was a delegate to the International Conference on Tuberculosis at Brussels in 1922.

One could never list in detail Doctor Barlow's many interests. His devotion and help to the Los Angeles Philharmonic Symphony is well known. He had a fine appreciation of many forms of art, his own magnificent library proving that. His horses and his dogs were part of his life. Religion to him meant service, but, after all, his friendships everywhere seemed most indicative of the things he held particularly dear in life. He "walked with kings nor lost the common touch." To have made calls with him, and to have seen his appreciation of the loneliness of a family who came to Los Angeles with some member ill, was a rich experience. Wealthy they might be, but he knew their riches were not buying everything, and he would ask someone to look in on them. . . .

He never had a word of discouragement for any situation. Those who loved him most were torn in their admiration between his integrity and gallantry, and his unfailing humor. . . .

His later years were filled with a great deal of pain, which he bore without complaint. He was too good a citizen not to have felt the changes that have come in this country. He leaves to the memory of his profession the highest ideals that a man can give. The tuberculosis world has been so enriched by Doctor Barlow's example that the Barlow Sanatorium has left its mark on every institution in this State. His personal friends—and they are legion—will carry memories of his unfailing friendship, his generosity, and his kindness. His patients will always remember that *something* he gave them, for which no prescription has ever yet been written; for they knew, without his mentioning it, that come what may he would see them through.

A line in Virgil speaks of "a place set aside in the Elysian Fields for those happy mortals who, through service, built their monuments on Earth." In that place, with the other great members of his profession who so gallantly served humanity that many of them even laid down their own lives, one can feel sure that Walter Jarvis Barlow rests only a short time on his laurels. Those of us who knew and loved him are certain that he will there find other work to do. T.

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Philip Newmark
1868–1937

Dr. Philip Newmark was born in Germany on Febru- 27, 1868. He attended the medical departments of the Universities of Berlin, Munich, and Wurtzberg, receiving his degree of Doctor of Medicine from the University of Berlin in the year 1891; then serving as an interne in the great charity hospital of that city for two years, and subsequently working for several years in other medical clinics.

He came to Los Angeles in the year 1897, where many of his blood relatives had previously taken up their residence; and during these last forty years he served in season and out of season, as one of the well-known physicians of our section of California.

In hundreds and hundreds of homes, his kind ministrations during the hours of illness and sorrow made him beloved by his fellow men, in numbers without end.

During these four decades, his work was not confined to private practice, for from the beginning he was associated with and gave of his best in the charitable clinics of the Kaspar Cohn and the Lincoln German hospitals.

It would be difficult to exaggerate the comfort and hope which his able care gave to his lay fellows among all groups in the citizenry of our community. Into all homes he entered always in the spirit of the true physician, with heart and mind alike devoted to service and efforts to ward off

Philip Newmark

grave illnesses, and to bring about early restoration of health and happiness to all who came under his supervision. His excellent training and experience as a physician, combined as they were with his kindliness of heart and manner, endeared him to all with whom he came in contact.

So he went through life, pure in mind and in body, with the constant thought to do humbly and efficiently his work as a true practitioner of the healing art.

In his social relationships he was beloved for his gracious courtesy and broad tolerance of the views of others; and in his daily life, wherever he went, almost every hour was marked by this kindly regard for others, and by his own self-effacement as he carried on his labors of healing service.

These attributes, which were part of every fiber of his being, and which were constantly in evidence in his relations with his fellow men, whether as friend or as medical counselor, he also carried into his home to a most unusual degree; and there, likewise, he served in the same unselfish, noble, and fine spirit that marked his contacts in the outer world.

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George H. Simmons *
1852–1937

George H. Simmons

* For editorial comment, see page 218.

George Henry Roth
1877–1937

Dr. George H. Roth was a product of the Pacific Coast, having been born in Woodland, California, October 30, 1877. He began as a teacher in the schools in Tulare County, which profession he followed for about seven years. At the end of that time he went to San Francisco and was graduated from the College of Physicians and Surgeons in 1909. He came to Los Angeles about 1911 and married Sara Piper on May 2 of that year.

In December, 1912, Doctor Roth entered the City Health Department as Assistant City Health Commissioner, where he remained until November, 1922. During 1922 he entered the service of Los Angeles County Health Department and worked his way through the various ranks until he became the head of the Bureau of Communicable Disease Control. He died suddenly, presumably of coronary thrombosis, on Sunday, August 22, 1937.

Doctor Roth was an excellent diagnostician of communicable diseases and was well grounded in methods of control. He was a man of the highest ideals and steadfast in his loyalty to his friends and to his ideals. He was a member of the American Public Health Association and Southern California Public Health Association; a member of the Los Angeles County, California State, and American Medical Associations. During his career he contributed various papers from time to time on public health subjects, notably rabies control and also poliomyelitis. Altogether, he had spent twenty-five years in public health service.

He will be greatly missed by his coworkers in the Los Angeles County Health Department.

THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION†

MRS. HOBART ROGERS.....President
MRS. FRED ZUMWALT .....Chairman on Publicity

Official Notice of State Board Meeting

Mrs. Hobart Rogers, President of the Woman's Auxiliary to the California Medical Association, has announced a special meeting of the officers and the Board of Directors for September 29 at the Hotel Leamington in Oakland. Matters of the utmost importance to the Auxiliary are to be discussed and the President urges a full attendance.

The meeting will convene at ten o'clock. Members of the Board are to be honored at luncheon at one o'clock. Immediately following the afternoon session a tea will be given, honoring the out-of-town Board members.

News Letter

Dear Auxiliary Members:

Are you like the small lad who so reluctantly packs his books on the first day of school and then rejoices when he meets his friends in the school yard? Yes, Auxiliary days are here again, and very busy ones they are to be if we are to achieve the goal of 100 per cent membership that is the aim of our California Auxiliary President. To quote our National Auxiliary President, "It is not too much to say that our success will be in substantially direct proportion to the number and strength of our membership."

The expansion of the Lending Library is to be stressed during the present year. If individually or collectively, as county units, you wish to aid in this work, to avoid duplications write to Mrs. Carl Ebert, librarian of the Woman's Auxiliary Lending Library, 634 South Westlake, Los Angeles. Address Mrs. Ebert also when desiring to borrow plays or books.

Remember the 100 per cent goal. It can only be accomplished through and with the coöperation of the county auxiliaries. Sincerely yours,

MRS. FRED H. ZUMWALT.

Component County Auxiliaries

Alameda County

On Friday, September 17, the Woman's Auxiliary to the Alameda County Medical Society met at the Oakland Club, 124 Montecito. A reception, followed by luncheon, allowed the members to greet old friends and to welcome new ones. Mrs. Harry Akesson was in charge of reservations.

Mrs. A. A. Alexander, President, outlined her program for the year. This will be a course in medical legislation. We have been most fortunate in that our first speaker will be Dr. Junius B. Harris of Sacramento. He has chosen for his subject, *New Legislation Affecting Medical Practice.* Mrs. E. N. Ewer was chairman of the day.

MRS. GRANT ELLIS,
Publicity Chairman.

San Diego County

The Woman's Auxiliary to the San Diego County Medical Society elected the following officers to serve for the coming year: Mrs. Elliott G. Colby, president; Mrs. W. D. Rolph, first vice-president; Mrs. Arthur A. Marlow, second vice-president; Mrs. R. Emerson Bond, secretary; Mrs. F. J. Ratty, treasurer; Mrs. W. C. Cook and Mrs. M. C. Harding, members-at-large.

Mrs. Elliott G. Colby, our president, organized her work early in the summer and appointed the following committee chairmen: Program, Mrs. W. C. Cooke; Membership, Mrs. F. C. Russell; Public Relations, Mrs. Paul Wedgewood; Social, Mrs. Charles E. Howard; Luncheon, Mrs. T. S. Whitelock, Jr.; Publications, Mrs. C. F. Birkenstock; Benevolence, Mrs. Alex M. Lesem; Courtesy, Mrs. F. G. Lindemulder; Publicity, Mrs. J. Terrell Scott; Yearbook, Mrs. W. M. Alberty; Project, Mrs. Arthur A. Marlowe; and Editor, Mrs. M. C. Harding.

The September meeting was a social meeting and was held on Tuesday, September 14, at beautiful Hotel del Coronado, where swimming and bridge was enjoyed after the business meeting.

The San Diego Auxiliary joins with other component county auxiliaries in expressing its sincere regret concerning the death of Mrs. John V. Barrow.

MRS. R. EMERSON BOND,
Secretary.

San Francisco County

Following a summer of inactivity, the Woman's Auxiliary to the San Francisco County Medical Society opened its fall season on September 13 with a meeting of the Executive Board at 1:30 p.m., called by Mrs. Hans Barkan, President, when the Board ratified the appointments of committee chairmen as follows: Membership Chairman, Mrs. Edmund J. Morrissey; Publicity Chairman, Mrs. Harry R. Oliver; Transportation Chairman, Mrs. Lovell Langstroth; Organization and Social Welfare Chairman, Mrs. J. C. Geiger; *Hygeia* Chairman, Mrs. Frank H. Rodin.

After the executive meeting, a large group of eligible members to the Auxiliary was entertained by the officers and the Board of Directors at a tea, the first of a Monday afternoon series, held in the drawing room of the County Medical Society, 2180 Washington Street. These teas will be held regularly, from three until five o'clock, on the second and fourth Mondays of each month. This will allow all eligible members an opportunity to become better acquainted with the organization.

The first general meeting was held on Tuesday, September 21, at 2180 Washington Street, Mrs. Hans Barkan presiding. The speaker of the day was Dr. Phillip H. Pierson, President of the California Tuberculosis Society. He spoke on *The Present Status of Bovine Tuberculosis and Its Relationship to Public Health.*

The October meeting will be held on the 19th, the third Tuesday afternoon, at 1:30 o'clock at 2180 Washington Street, when again we will be privileged to hear a distinguished speaker. All members are urged to attend.

MRS. HARRY R. OLIVER,
Publicity Chairman.

† As county auxiliaries of the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Fred Zumwalt, Chairman of the Publicity and Publications Committee, 3880 Clay Street, San Francisco. Brief reports of county auxiliary meetings will be welcomed by Mrs. Zumwalt and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the Editor to allocate two pages in every issue to Woman's Auxiliary notes.

MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings

American Medical Association, San Francisco, June 7–11, 1938. Olin West, M. D., 535 North Dearborn Street, Chicago, Secretary.

California Medical Association, Hotel Huntington, Pasadena, May 9–12, 1938. F. C. Warnshuis, M. D., 450 Sutter Street, San Francisco, Secretary.

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American College of Surgeons, Chicago, October 25–29. George W. Crile, M. D., 40 East Erie Street, Chicago, Chairman, Board of Regents.

Association of American Medical Colleges, San Francisco, October 24–26. Fred C. Zapffe, M. D., 5 South Wabash Avenue, Chicago, Secretary.

Association of Military Surgeons of the United States, Los Angeles, October 14–16. H. L. Gilchrist, M. D., Army Medical Museum, Washington, D. C., Secretary.

Interstate Postgraduate Medical Association of North America. St. Louis, October 18–22. W. B. Peck, M. D., 27 East Stephenson Street, Freeport, Illinois, Managing Director.

Oregon State Medical Society, Salem, October 21–23. Morris L. Bridgeman, M. D., 1020 S. W. Taylor Street, Portland, Secretary.

Pacific Coast Society of Obstetrics and Gynecology, San Francisco, November 3–6. T. Floyd Bell, M. D., 400 Twenty-ninth Street, Oakland, Secretary.

Medical Broadcasts*

Los Angeles County Medical Association

The radio broadcast program for the Los Angeles County Medical Association for the month of October is as follows:

Saturday, October 2—KFI, 9:15 a. m., The Road to Health; KFAC, 10:15 a. m., Your Doctor and You.
Thursday, October 7—KECA, 10:45 a. m., The Road to Health.
Saturday, October 9—KFI, 9:15 a. m., The Road to Health; KFAC, 10:15 a. m., Your Doctor and You.
Thursday, October 14—KECA, 10:45 a. m., The Road to Health.
Saturday, October 16—KFI, 9:15 a. m., The Road to Health; KFAC, 10:15 a. m., Your Doctor and You.
Thursday, October 21—KECA, 10:45 a. m., The Road to Health.
Saturday, October 23—KFI, 9:15 a. m., The Road to Health; KFAC, 10:15 a. m., Your Doctor and You.
Thursday, October 28—KECA, 10:45 a. m., The Road to Health.
Saturday, October 30—KFI, 9:15 a. m., The Road to Health; KFAC, 10:15 a. m., Your Doctor and You.

Association of Military Surgeons of the United States. The Pacific Fleet will be in the port of Los Angeles during the convention of the Association of Military Surgeons on October 14 to 16, 1937, at the Ambassador Hotel. An unusually interesting program has been prepared, and the scientific and technical exhibits will be the largest in the history of the organization. Physicians, surgeons, dentists, and veterinarians, of the Army, Navy, Marine Corps, CCC camps, and the Veterans' Administration will be present. For additional information write to Robert L. Lewin, Ambassador Hotel, Los Angeles.

* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour, and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

Industrial Hygiene.—Industrial hygiene, which means protection and improvement of the general health of industrial workers, has long been recognized as an important problem in public health work. Figures from the United States census for 1930 show that approximately fifteen million persons are gainfully employed in manufacturing and mechanical industries and in the extraction of minerals. These people face specific occupational accident and disease hazards.

Occupational accident hazards are already being eliminated with a large degree of success through the coöperative efforts of private industry, the various state labor departments, and the United States Department of Labor. There is reason to believe that occupational disease hazards may similarly be eliminated.

Some of these hazards are: silica dusts, asbestos dusts, lead, mercury, arsenic, chromium, radium, selenium, phosphorous, carbon monoxid gas, hydrogen sulphid gas, carbon tetrachlorid, methanol, benzol, caustic liquids, halogenated naphthas, intense heat, dampness, and defective lighting.

Separates Virus From the Tissues.—A merry-go-round which breaks down disease-causing viruses has convinced some scientists that a virus is deadly merely because of the arrangement of atoms within its molecules.

This new conception of the theory that pure chemicals caused the permanent muscle rigidity of infantile paralysis, the constant sniffling of the common cold, and many other diseases, has been discussed by Dr. Ralph W. G. Wyckoff of the Rockefeller Institute for Medical Research.

The merry-go-round which was used in finding this new approach to the mechanism, treatment and control of disease, is a glorified cream separator called an ultracentrifuge, which is driven by air and floats on air bearings. It spins at thousands of revolutions per second and creates forces from 250,000 to 300,000 times the force of gravity.

Such forces separate the disease viruses from the animal or plant tissues which they have infected and make it possible to study them as pure substances for the first time. Heretofore they have been invisible under the most powerful microscopes. Their presence was deduced only from the fact that crude extracts from a diseased plant or animal would infect healthy plants or animals even though no bacteria could be found in the juices.

Many medical men view this discovery as the greatest single advance in the study and treatment of disease since Louis Pasteur proved that tiny bacteria cause disease, according to Stephen J. McDonough, Associated Press science writer.

Research has convinced scientists at Rockefeller Institute that the disease-causing ability of the viruses cannot be separated from their construction as large protein molecules, rich in nitrogen and thousands of times larger than the average molecules found in other forms of matter.

Doctor Wyckoff declares, however, that it is possible to whirl these viruses fast enough in the ultracentrifuge to break up the virus molecules just as an ice cube is broken up. Then they no longer have the ability to produce disease.

"A new field of research into the mechanism and control of disease is opened up by the possibility of treating its cause as a pure chemical compound," Doctor Wyckoff said.

This indicates the possibility of developing "vaccines" from pure viruses which, when injected into human beings, will protect them against infantile paralysis, cold, smallpox, and other diseases.

Work with the ultracentrifuge in isolating the pure viruses has also bridged the gap between the dead protein molecules of simple form and the living bacteria, thus offering a new possibility of "attaching precise meaning to the term 'alive,'" and explaining what life is, Doctor Wyckoff declared.—*The New York Times.*

United States Public Health Service: Syphilis and Gonorrhea Statistics.—Health officers' monthly statement of venereal diseases reported for the month of June, 1937: This statement is issued monthly for the information of health officers in order to furnish current data as to the prevalence of the venereal diseases. The following reports were received from state health officers. The figures are preliminary and subject to correction. It is hoped that this will stimulate more complete reporting of these diseases.

	Syphilis		Gonorrhea	
State	Cases Reported During Month	Monthly Case Rates Per 10,000 Population	Cases Reported During Month	Monthly Case Rates Per 10,000 Population
California	1,884	3.11	1,879	3.10
City				
*Los Angeles, Calif.	....	.....	....	.....
Oakland, Calif.	32	1.06	31	1.02
San Francisco, Calif.	114	1.70	145	2.16

* No report for the current month.

Taking the Mystery Out of Medicine.—One of the principal ambitions of the Division of Health and Science of the 1939 Golden Gate International Exposition, which will be held on the world's largest man-made island in San Francisco Bay, is to take the mystery out of medicine.

This intention has been announced by a voluntarily formed committee of leading western medical men who are working out the details of the health exhibit for the World's Fair. The major emphasis will be, they say, on the prevention of disease rather than on its treatment. In keeping with the Exposition's Pageant of the Pacific theme, the contributions of Pacific nations toward the health of humanity will be dramatized. Proper nutrition, practical knowledge of vitamins, sanitation, vaccination, and other matters of public health will be explained for the layman.

The exhibit plans already have the coöperation of several American universities, notably the University of California, Stanford, the University of Southern California, California Institute of Technology, Harvard University, University of Oregon, and University of Washington.

The committee includes Dr. Chauncey D. Leake, Chairman, head of the Department of Pharmacology, University of California Medical School, an international expert on anesthetics and amebic dysentery; Dr. J. C. Geiger and Dr. Paul Barrett of the San Francisco Department of Health; Dr. Walter Brown of Stanford University, one-time president of the American Public Health Association; Dr. Francis Carmelia, representing Dr. Thomas Parran, Jr., Surgeon-General of the United States; Dr. L. R. Chandler, Dean of the Stanford University Medical School; Dr. Walter Dickie, head of the California State Department of Public Health; Dr. William Dock, head of the Department of Pathology, Stanford University, a brilliant investigator in the abnormalities of the circulatory system; Mr. Waldemar Gnerich, Secretary, Northern California Retail Druggists' Association, representing druggists' associations of the eleven western states; Dr. Charles Gilman Hyde, University of California engineer; Dr. T. Henshaw Kelly, President of the San Francisco County Medical Society, an experienced public relations worker for the California Medical Association; Dr. John Leggett, representing the California State Dental Association; Dr. Wilfrid Robinson, representing the American Dental Association; Dr. K. F. Meyer, Director of the Hooper Foundation and head of the University of California Medical School's Department of Bacteriology; Dr. Guy Millberry, Dean of the University of California School of Dentistry, official representative of the American Public Health Association; Dr. Langley Porter, Dean of the University of California Medical School; Dr. William Shepard, Metropolitan Life Insurance Company, representing the American Public Health Association; Dr. Nina Simmonds, University of California Medical School, a nutrition authority; Dr. F. C. Warnshuis, Secretary of the California Medical Association; and Dr. C. L. A. Schmidt, head of the Department of Biochemistry, University of California.

The committee is working out the details of its exhibit with Milton Silverman, head of the Health and Science Division for San Francisco's 1939 World's Fair.

Division of Public Health Nursing.—The establishment of a division of public health nursing in the California State Department of Public Health has been announced by Dr. Walter M. Dickie, Director. Miss Rena Haig, who has been with the State Department of Public Health since October, 1936, has been appointed chief of the division. All public health nurses in the various bureaus of the State Department of Public Health will be attached to the division and will be under Miss Haig's direction.

The first public health nurse was employed in the State Department of Public Health in 1917. In the twenty intervening years public health nurses have been employed from time to time in the various bureaus of the department. The position of supervisory nurse, created in 1930, was discontinued in 1932, when budget reductions became necessary.

The Division of Public Health Nursing has been established for the purpose of coördinating public health nursing activities within the State Department of Public Health and giving more adequate service to all public health nurses in the State.

California Tuberculosis Record. — The tuberculosis death rate has fallen from 127.7 per 100,000 population in 1925 to 80 in 1935. This is a reduction of more than 37 per cent. In 1906, the death rate for this disease was 235.7 per 100,000 population. The drop from this high rate indicates the progress that has been made in tuberculosis control in California.

The State Board of Public Health has been active in raising the standards of care in county hospitals by means of the State subsidy to approved institutions, such funds being appropriated from the State treasury and allocated to the counties for expenditure.

Imported Tuberculosis. — The problems related to the migration of tuberculosis cases in advanced stages to California, particularly to Southern California, are very acute. This applies not only to migration from other states, but also to migration from Mexico. About 20 per cent of all tuberculosis deaths in California are among Mexicans. Some of the counties of Southern California are required to spend many thousands of dollars in the care and treatment of these foreign-born residents. If more satisfactory accomplishments in shutting off the tide of this immigration were made available, considerable might be accomplished in reducing the tuberculosis mortality rate of this State. It is doubtful that any other state in the Union makes such excellent efforts in the care and treatment of its indigent patients. This alone is an enormous factor in reducing the mortality rate. The State Board of Public Health is a leading factor in the provision of high standards of care and treatment for the State's tuberculous.

CALIFORNIA

Number of Deaths from Tuberculosis With Rates Per 100,000 Population, 1906-1935

Year	Number of Tuberculosis Deaths	Rates Per 100,000 Population
1906	4,437	221.8
1907	4,607	225.5
1908	4,565	209.0
1909	4,673	203.9
1910	4,872	203.0
1911	5,114	203.9
1912	5,128	196.0
1913	5,402	198.3
1914	5,320	187.8
1915	5,551	188.9
1916	5,267	172.8
1917	5,457	172.9
1918	5,888	180.4
1919	5,678	168.3
1920	5,397	152.6
1921	5,427	144.5
1922	5,847	147.1
1923	5,724	136.5
1924	6,023	136.5
1925	5,896	127.3
1926	5,794	119.4
1927	5,960	117.6
1928	6,074	114.8
1929	5,855	106.3
1930	5,629	98.2
1931	5,292	88.9
1932	5,020	81.3
1933	4,619	81.9
1934	4,611	81.7
1935	4,516	80.0

American Board of Obstetrics and Gynecology: Examinations.—The next examinations (written and review of case histories) for Group B candidates will be held in various cities of the United States and Canada on Saturday, November 6, 1937, and Saturday, February 6, 1938. Application for admission to these examinations must be filed on an official application form in the office of the secretary at least sixty days prior to these dates.

The general oral, clinical, and pathological examinations for all candidates (Groups A and B) will be conducted by the entire Board, meeting in San Francisco on June 13 and 14, 1938, immediately prior to the meeting of the American Medical Association.

Application for admission to Group A examinations must be on file in the secretary's office before April 1, 1938.

For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh, (6), Pennsylvania.

Control of Epidemic Diseases in California.—The terminals of the greatest trade routes with Oriental countries, and some tropical countries as well, are in the two great ports of the Pacific—San Francisco and Los Angeles. In spite of the effective quarantine that is maintained by the United States Public Health Service, California has certain definite problems related to the importation of serious and rapidly fatal infections from Oriental and tropical countries. It is impossible to discover many of these infections through the routine examinations that are conducted by port authorities and they creep into California occasionally in spite of the efficient safeguards that are provided. Virulent smallpox from Oriental ports occasionally finds its way into California communities. This is not the type of smallpox that is ordinarily encountered throughout the United States, but a highly virulent form, extremely rapid in its death-dealing performance. A severe form of epidemic meningitis has been brought into California by Filipinos, and their contacts in California occasioned considerable alarm, necessitating an embargo, upon Presidential proclamation, covering passengers from certain Oriental ports.

California continually faces acute problems in the prevention of plague, imported epidemic meningitis, virulent smallpox, typhus fever, and other infectious diseases which are uncommon to us but which are common in Asiatic countries. To be prepared against invasions of these devastating diseases is a matter of the utmost necessity. It is only through the maintenance of a highly trained and efficient personnel, skilled in the prevention and control of communicable diseases, that California is able to provide safeguards against these menaces, not only to the health of its own communities but to all other communities throughout the United States as well.

Among the more unusual diseases which the California Department of Public Health has been obliged to study in order to develop methods of control are coccidioidal granuloma, Rocky Mountain spotted fever, psittacosis, tularemia, and relapsing fever. In order to perform the necessary epidemiological investigations which the presence of these diseases requires, it is necessary to employ high-grade technical assistants. In fact, it would seem that one of the chief functions of the California State Department of Public Health now lies in the provision of the highest grade of technical service to supplement and augment the efficient public health service that is provided by local communities throughout the State. During recent years the development of local health units has been most rapid. This relieves the State Department of Public Health of much petty routine and the unnecessary burden-bearing which was the rule during preceding years. Its staff is relieved for the performance of duties which local health departments are not equipped to carry out. It is thus better able to care for the countless emergencies that arise and which do not lie within the province of local health departments. It is possible that the time will come when the State Health Department may consist only of the most highly trained specialists, whose duties will lie solely along lines of research and investigation, providing only the skilled services which local communities are unable to afford or provide.

Public Health Service Reprint on Sulphanilamid.—The United States Government Printing Office at Washington, D. C., has recently brought off the press reprint No. 1826 from the Public Health reports dealing with Studies in Chemotherapy, the article being No. 5 (Sulphanilamid, Serum, and Combined Drug and Serum Therapy in Experimental Meningococcus and Pneumococcus Infections in Mice). Reprints may be had at the price of five cents each by writing to the Superintendent of Documents, Washington, D. C.

Certification and Licensure: By the State Board of Public Health.—Year by year the Legislature imposes additional powers of inspection, standardization, and licensure upon the State Board of Public Health. The issuance of licenses is based upon the maintenance of standards established by the board. A wide range of subject matter is covered. Since the enforcement of these standards has a far-reaching effect upon the public health and welfare of each local community, a list of these mandatory functions is appended:

License, Certificate of Permit	*Number Issued to Jan. 1, 1937*
Cannery (year 1936)	186
Cold storage (year 1936)	19
Maternity home or hospital	864
Water supply	226
Sewage disposal	402
Shellfish	41
Clinics	680
Aviary	167
Tuberculosis sanatoria (public and private) rest homes	.....
Laboratory	83
Certificates to Individuals	
Registered nurse	30,002
Public health nurse	1,676
Laboratory technician	904

Louisiana's Adventure Into State-Supported Hospitalization.—A million dollars' worth of small, free, "poor-man hospitals" and clinics are being scattered about Louisiana by Governor Richard W. Leche.

"When people are too poor to pay for private medicine and hospitalization they are too poor to travel a long distance, so we are bringing new hospitals to the people," said Governor Leche recently in explaining the program.

"Free hospitalization for the destitute in many states is being conducted on a county or municipal basis, but we believe Louisiana is a pioneer in establishing a state-wide system."

The plan calls for a network of clinics and small five-bed to ten-bed wards in private hospitals under contract to the state. The cost of surgical and medical care, nursing, and other services will be defrayed by the state on a fee basis.

Another part of the state's hospitalization program has to do with the $12,000,000 rebuilding of state-subsidized, ancient and famous Charity Hospital at New Orleans, where one of the largest medical centers of the country is being created with the aid of state and federal funds. Plans are also under way for construction of new hospitals at Alexandria and Lafayette, large towns in the central part of the state.

Administration of the "poor-man hospitals" has been placed in charge of a state hospital board created by the legislature in keeping with a campaign promise of Governor Leche, who was lifted from the judiciary to the gubernatorial chair.

The immediate supervision devolves upon A. R. Johnson, young and aggressive public welfare commissioner, in whose agency has been concentrated every service the state is able to provide for the poor. Johnson superintends the clearing of all direct relief payments, all enrollments in the CCC, certifications to the WPA, surplus commodity distribution, the social security program for old age relief, maternal and child welfare, and industrial rehabilitation.

"We are following well-tested principles of administrative efficiency by this system," said Governor Leche recently. "We obtain better results at less cost, and we avoid chasing the needy around to a dozen places before learning which service they need and are entitled to receive. It is simply straight-line administration."

Postgraduate Symposium on Heart Disease.—The Heart Committee of the San Francisco County Medical Society will hold its eighth annual postgraduate symposium on heart disease at the University of California, Stanford University, and San Francisco Hospitals.

November 17 to 18, 1937.—The course will cover the various aspects of heart disease, including diagnosis, prognosis, and treatment. Recent advances in cardiology will be reviewed and evaluated. Clinics with practical demonstrations will be held, and newer diagnostic procedures and methods of treatment will be presented and evaluated.

The registration fee will be $2, and will also entitle the registrant to membership in the California Heart Association for the year 1938. If you are planning to attend, will you please notify the Secretary as soon as possible? Checks should be made payable to the San Francisco Heart Committee, and mailed to the Secretary. Your membership card, which will also serve as your registration card, will then be mailed to you, and also a copy of the program, as soon as the program is completed. For further information write to Elbridge J. Best, M. D., Secretary, San Francisco Heart Committee, 604 Mission Street, Room 802, San Francisco.

Industrial Accident Commission of California: Safety Department.—Mr. C. H. Fry, Chief of the Bureau of Industrial Accident Prevention in the Industrial Accident Commission of California recently in attendance at the Western Safety Conference of the Third Annual Safety Conference held in Portland, Oregon, as chairman of the Board of Governors of the conference, issued the following statement expressing in brief the origin and purpose of these conferences:

The first meeting of the Western Safety Conference was called at the express direction of Governor Frank F. Merriam in 1935 at San Francisco. On that occasion accident problems peculiar to the West were thoroughly discussed. Conclusions reached were not surprising. Nothing comparable to our huge logging operations will be found anywhere in the United States or Canada other than in the western portion of America. Eastern loggers, used to Eastern methods and handling comparatively small trees, gasp for breath when they visit Western forests. Boring through our tremendous mountains, composed of solid rock, presents problems with which few engineers of the East have had experience. Railroad operations make the Eastern railroad man thankful that the responsibility is not his. Our water impounding projects, such as Boulder, Bonneville and Grand Coulee dams, are of such magnitude that they almost defy human imagination. Mining operations are vastly different from those of the Middle West and East.

Our well-open spaces and well paved highways encourage high speed driving. This requires the attention of individuals who are close to these problems; hence, an organization composed of persons conversant with the West and the logical answer to prevention of the growing accident menace.

The airplane, automobile and radio have almost obliterated city, county and state boundary lines. Citizens cannot satisfactorily comply with one set of safety laws or orders today and another set tomorrow. The means found effective in preventing a certain type of accident in one state should also be effective in another. The purpose of the Western Safety Conference is to secure the maximum possible uniformity in safety rules, laws and order.

In the early part of 1935, the President of the United States, in one of his radio talks, broadcast to the nation, pointed out the terrific death toll caused by automobile accidents in the United States. His statement was a challenge to the ingenuity and support of all the states of the Union to do something about it.

While the President discussed only the death toll taken by automobile accidents, his challenge and warning applied with equal force to the cause of deaths in the home and every other phase of our complex human life. The effect is the same on the individual killed and those dependent upon him.

To stand by idly and permit this avalanche of deaths to continue would justify the charge that those who are concerned with these problems had shirked their duty.

Hence the Western Safety Conference with its inspirational, educational, and helpful program, is uniting the people of the West in the struggle for safety, health and happiness, and in the battle against accidental injuries, sickness, and death.

Record College Influx Foretold.—Office of Education statisticians predicted recently that fewer children will enter elementary schools this fall, but more youths will go to school.

The country's falling birth rate has kept the grade-school enrollment on the decline since 1930, they said. In seven years the number of pupils has dropped one million.

College enrollments, however, will reach a new high. About one out of every one hundred persons will be in college or university this fall.

The Office of Education said thirty-three million children and adults will join in the back-to-school movement this fall.—*Los Angeles Times.*

Division of Immigration and Housing: Industrial Accident Commission of California.—"During the month of July, 59 labor camps were inspected; 22 camps were listed as good, 31 fair, and 6 bad. Of the total number of camps inspected, 38 were old camps and 16 new ones; five reinspections were made. In the camps inspected it was found that 4,795 occupants were American-born, while 1,273, were foreign-born, making a total of 6,068, of which 94 were men, 3,469 women, and 2,505 children.

"During the month 111 automobile camps were inspected; 52 were listed as good, 49 fair, 8 bad, and one closed. Two hundred and fifty-seven housing inspections were made.

"Camps for seasonal workers were in better condition than formerly in several of the counties where large numbers of workers are needed to harvest crops. Contra Costa County camps show a decided improvement; several of the operating companies installed sanitary units of permanent construction. Such improvements are significant, indicating a decision to plan for the future and be ready when the crews are needed. Other counties and districts are also falling into line with our program."

Chicago Takes Steps Against Syphilis.—Years ago Chicago pioneered in a campaign to drive out venereal disease quacks and acquaint the public with the facts concerning syphilis and gonorrhea. In 1935, the Chicago *Tribune* earned the distinction of being the first newspaper to publish special full-page feature articles on these diseases. Now, once more Chicago leads the way in efforts to stamp out syphilis by polling her citizens as to their willingness to submit to blood tests to ascertain the presence of this disease.

A million ballots, each with a franked return envelope enclosed, were sent out by the Chicago Board of Health, coöperating with the United States Public Health Service. This was the form:

HELP TO PLACE SYPHILIS UNDER CONTROL

1. In strict confidence, and at no expense to you, would you like to be given, by your own physician, a blood test for syphilis? Yes. . . . No. . . . [Please check one.]

2. Including yourself, indicate on one of the two lines below the age of each member of your family who would like to have a blood test. [*a*] The age of each male who would like to have a blood test:

.....

[*b*] The age of each female who would like to have the blood test:

.....

Please Do Not Sign Your Name

With the ballot went a letter of explanation from Dr. Herman N. Bundesen, President of the City Board of Health.

The aim of the poll is (1) to register public response to the national crusade against venereal disease, and (2) to get an actual census of syphilis prevalence in Chicago, as a basis for a mass attack. Returns have been prompt and encouraging, though it will naturally be some time before a full report is possible. Coöperating in the plan are the Illinois Social Hygiene League and other voluntary agencies, including Mayor Kelley's Committee of One Hundred for the Control of Syphilis and Gonorrhea, of which Dr. Louis E. Schmidt is chairman. Dr. Frank J. Jirka, State Health Director, and Dr. O. C. Wenger of the United States Public Health Service are actively assisting.

San Francisco Community Chest. — Members of the San Francisco City and County Society are taking an active part both in year-round phases of Community Chest activity and in the annual campaign, which will be conducted during October 20 to November 5 this year. Dr. P. K. Gilman is chairman of the Chest Health Council and Dr. Ralph Reynolds is one of the most active members of the Speakers' Bureau. Among the section chairmen under Doctor Gilman are: Dr. E. J. Best, convalescent care; Dr. Charles Barnett, social hygiene; Dr. L. R. Chandler, out-patient clinics; Dr. George S. Johnson, mental hygiene; Dr. H. E. Thelander, child hygiene; Dr. John P. Strickler, heart; and Dr. William C. Voorsanger, tuberculosis. The slogan for this year's appeal in San Francisco is "Buy Health and Happiness for Them." The campaign will seek to emphasize the practical, as well as the ethical reasons for support of private health and welfare agencies.

Child Experts Present Papers at Minneapolis.— Cumulative records covering behavior studies of two hundred adolescents since 1932 by the Institute of Child Welfare of the University of California, were presented to the annual meeting of the American Psychological Association at Minneapolis by Dr. Harold E. Jones, Director of the Institute. The records contained interesting developments in physical development, motor abilities, learning, intelligence achievement and personality characteristics, and a description of the manner in which these results were obtained.

Dr. W. Jeffret Cameron, research associate in the Institute, also presented a paper containing findings from an eight-year study of a single adolescent. This study included physiological determinations, observations of social behavior, reading ability and school achievement scores. Both papers were illustrated with slides.

Accompanying both papers were suggestions as to how the findings made by the two doctors might be applied to everyday problems of adolescence in the home and the school.

Venereal Diseases Reported. — An improvement is noted in the reporting of cases of gonorrhea and syphilis during the past three years. Most of such cases have been reported from public clinics, but private practitioners are now reporting more cases than heretofore. During the World War, starting as an emergency measure, a bureau of venereal diseases was maintained within the State Department of Public Health—the first such bureau to be established in the United States. Through lack of funds, in 1920, the bureau was discontinued. It is believed that with the enactment of specific legislation and the provision of additional funds, by the State, definite progress may be made in bringing these diseases under a better degree of control.

Gonorrhea Cases Reported in California, 1920-1936

Year	Cases Reported
1920	5,306
1921	4,709
1922	5,060
1923	5,704
1924	5,265
1925	5,391
1926	5,570
1927	5,348
1928	5,593
1929	5,842
1930	7,001
1931	8,123
1932	8,702
1933	7,817
1934	10,459
1935	10,630
1936	12,118

Syphilis Cases Reported in California, 1920-1936

Year	Cases Reported
1920	4,498
1921	4,220
1922	5,188
1923	5,983
1924	6,546
1925	6,931
1926	6,369
1927	6,573
1928	7,538
1929	8,073
1930	8,455
1931	9,335
1932	11,717
1933	10,737
1934	11,820
1935	11,957
1936	11,725

The main objectives in the present State plan for venereal disease control consist of (*a*) the provision of adequate facilities for the diagnosis and control of syphilis; (*b*) provision of educational facilities leading to advances in methods of treatment and control of syphilis; (*c*) education of the general public in all matters pertaining to venereal diseases and their control; (*d*) stimulation of case reporting and the provision of adequate supervision over active cases of syphilis; (*e*) intensive and complete investigations of early and potentially infectious cases of syphilis and their contacts.

American Academy of Orthopedic Surgeons.—The first West Coast meeting of the American Academy of Orthopedic Surgeons will be held on January 16 to 20, 1938, at the Hotel Biltmore, Los Angeles. Special trains will be run with stop-overs at Santa Fe, the Grand Canyon, San Francisco, and other points. For further information write to Robert L. Lewin, Hotel Biltmore, Los Angeles.

Daniels Sees Health Protection as Duty.—Josephus Daniels, United States Ambassador to Mexico, urged internationalism in health as Dr. José Siroub, Mexico's Secretary of Health, unveiled a plaque in the Health Department Building in Mexico City, on September 18, in memory of John D. Rockefeller.

"No walls are so high as to confine germs and bugs," said the United States Ambassador. "The first duty of wealth is to protect public health, not alone in its own country but also in all others."—*Los Angeles Times.*

Bovine Tuberculosis: New Jersey Eradications.— The State of New Jersey was officially designated as a modified accredited area by the United States Department of Agriculture on September 1. On that date the last two counties, Salem and Middlesex, completed the required testing of their cattle and reduced the infection to less than one-half of one per cent as shown by the tuberculin test. The state thus becomes the forty-fifth state to receive official recognition.

A considerable degree of tuberculosis previously existed among New Jersey cattle, and it was necessary to conduct a large number of tuberculin tests to detect reactors and remove them. This work has been conducted in coöperation with the State Department of Agriculture since 1918, and coöperation on the part of the cattle owners has been very satisfactory.

New Jersey has some very large herds of cattle and the dairy industry is one of much importance to the farmers of that state. Arrangements are being made to hold an Achievement Day celebration at Trenton on September 9, to be attended by persons interested in the dairy industry and other fields of agricultural activity.

Of the three remaining states that have not received official recognition, the work is most advanced in New York, where only one county is yet to be placed on the modified accredited list.

In South Dakota there are seventeen nonaccredited counties. The work has been proceeding well in South Dakota, but recently it has been necessary to temporarily discontinue most of it on account of the outbreak of anthrax.

In California there are thirty-seven counties in the nonaccredited area, but state and federal employees are working on the project in that state, with prospects that some of these counties will be added to the modified accredited area within the next few months.

Health Officers' Section: League of California Municipalities.—The annual session of the Municipal Health Officers of California convened at San Jose, on September 13 to 15, 1937.

The program follows:

Monday, September 13

8:00 a. m.—*Registration.*

9:00 a. m.—*Presiding,* A. M. Lesem, M. D., San Diego, President, Health Officers' Section.

Address of Welcome, Stanley Kneeshaw, M. D., San Jose, President, Santa Clara County Medical Society.

Response, A. M. Lesem, M. D., San Diego, Director, City and County Department of Public Health.

Report of the Secretary, W. M. Dickie, M. D., Director, California State Department of Public Health.

Public Health Review of the Past Year, W. M. Dickie, M. D., State Director of Public Health.

Announceemnt of Committee Appointments.

2:00 p. m.—*General Session, League of California Municipalities.*

4:00 p. m.—*Committee Meetings,* Health Officers' Section.

Tuesday, September 14

9:00 a. m.—*Presiding,* E. F. Reamer, M. D., Modesto, Health Officer of Stanislaus County, Vice-President, Health Officers' Section.

Regulation of Clinical Laboratories Under the New Law, Wilfred H. Kellogg, M. D., Berkeley, Chief, Divislon of Laboratories, California State Department of Public Health.

9:20 a. m.—*Discussion.*

9:30 a. m.—*The Health Officer's Responsibility in the Management of Typhoid Carriers,* Harlin L. Wynns, M. D., San Francisco, Chief, Bureau of Epidemiology, California State Department of Public Health.

9:50 a. m.—*Discussion,* Myrnie A. Gifford, M. D., Bakersfield, Assistant Health Officer, Kern County Health Department.

10:00 a.m.—*Upper Respiratory Infections,* M. Dorthy Beck, San Francisco, Epidemiologist-Bacteriologist, Bureau of Epidemiology, California State Department of Public Health.

10:20 a. m.—*Epidemiology in Food Infections,* F. D. Sweger, Los Angeles, Los Angeles City Health Department.

10:40 a. m.—*Laboratory Methods in Food Infections,* R. V. Stone, D. V. M., Los Angeles, Director of Laboratories, Los Angeles County Health Department.

11:00 a. m.—*Sterilization of Drinking Utensils,* Jack G. Baker, Chief, Division of Food Inspection, San Diego City Department of Public Health.

12:00 m.—*Round Table Luncheon and Discussion of Public Health Legislation. Presiding,* Herbert F. True, M. D., Sacramento, City Health Officer and Representative of Health Officers' Section on Executive Board, League of California Municipalities.

2:00 p. m.—*Presiding,* I. O. Church, M. D., Oakland, Health Officer of Alameda County.

Mosquito and Malaria Control, Professor W. B. Herms, Berkeley, Department of Entomology, College of Agriculture, University of California.

2:30 p. m.—*Malaria and Mosquito Abatement in San Joaquin County,* W. T. Ingram, Stockton, Sanitary Engineer, San Joaquin Local Health District.

2:50 p. m.—*Discussion,* E. A. Reinke, Berkeley, Senior Sanitary Engineer, Bureau of Sanitary Engineering, California State Department of Public Health.

3:00 p. m.—*Industrial Hygiene,* Frank L. Kelly, M. D., Berkeley, City Health Officer.

3:20 p. m.—*Discussion,* John P. Russell, M. D., Berkeley, Chief, Industrial Hygiene, California State Department of Public Health.

3:30 p. m.—*Rabies Control in Southern California,* George Parrish, M. D., Los Angeles, Health Officer, Los Angeles City Department of Public Health.

3:50 p. m.—*Discussion.*

7:00 p. m.—*Annual Banquet—Health Officers' Section,* Saint Claire Hotel, Gold Room.

Presiding, H. C. Brown, M. D., San Jose, City Health Officer.

Address—Non-resident Indigents, Harold E. Pomeroy, San Francisco, Administrator, California Relief Administration.

Wednesday, September 15

9:00 a. m.—*Presiding,* C. H. Burchfiel, M. D., San Jose, Health Officer of Santa Clara County.

Health of the Migratory Worker, Stanford F. Farnsworth, M. D., San Francisco, Assistant Chief, County Health Work, California State Department of Public Health.

9:20 a.m.—*Discussion,* Lee A. Stone, M. D., Madera, Health Officer of Madera County.

9:30 a. m.—*The Social Security Program,* F. A. Carmelia, Senior Surgeon, United States Public Health Service, San Francisco.

9:50 a. m.—*Discussion.*

10:00 a. m.—*Latest Developments in the Transmission of Plague,* C. R. Eskey, Senior Surgeon, United States Public Health Service, San Francisco.

10:20 a.m.—*Discussion,* W. H. Kellogg, M. D., Berkeley, Chief, Division of Laboratories, California State Department of Public Health.

10:30 a. m.—*Extension of Full Time Health Units,* George Uhl, M. D., San Francisco, Chief, County Health Work, California State Department of Public Health.

10:50 a. m.—*Discussion,* Fred T. Foard, Senior Surgeon, United States Public Health Service, San Francisco.

2:00 p. m.—*Presiding,* A. M. Lesem, M. D., San Diego, President, Health Officers' Section.

Coördination in the Public Health Nursing Program, Rena Haig, P. H. N., San Francisco, Chief, Division of Public Health Nurring, California State Department of Public Health.

2:20 p. m.—*Discussion,* Helen S. Hartley, P. H. N., Supervising Nurse, San Joaquin Local Health Department.

2:30 p. m.—*Education in Public Health Nursing,* Ruth Hay, P. H. N., Berkeley, Assistant Professor of Public Health Nursing, Department of Hygiene, Unlversity of California.

2:50 p. m.—*Discussion,* Anna Heisler, R. N., Nursing Consultant, United States Public Health Service, San Francisco.

3:00 p. m.—*Health Education of the Adolescent,* W. L. Halverson, M. D., Pasadena City Health Officer.

3:20 p. m.—*Discussion.*

3:30 p. m.—*The Venereal Disease Program,* Malcolm H. Merrill, M. D., San Francisco, Chief, Bureau of Venereal Diseases, California State Department of Public Health.

3:50 p.m.—*Discussion,* Herbert F. True, M. D., Sacramento, City Health Officer.

4:00 p. m.—*Prophylactic Value of Bismuth in Syphilis,* P. J. Hanzlik, M. D., San Francisco, Professor of Pharmacology, Stanford University School of Medicine.

4:20 p. m.—*Discussion.*

4:30 p. m.—*Veneral Disease Control in San Francisco,* George Becker, M. D., Chief, Bureau of Communicable Diseases, San Francisco Department of Public Health.

4:50 p. m.—*Discussion.*

5:00 p. m.—*Sulphanilamide in the Treatment of Gonorrhea,* H. M. Elliott, M. D., Los Angeles, Division of Venereal Diseases, Los Angeles City Health Department.

The roster of officers follows: Dr. A. M. Lesem of San Diego, president; Dr. E. F. Reamer of Modesto, vice-president; Dr. George Parrish of Los Angeles, vice-president; Dr. W. M. Dickie of Sacramento, Secretary-treasurer; Dr. H. F. True of Sacramento, representative on Board of Directors, League of California Municipalities.

Morbidity Reporting Improves in California.—The reporting of communicable diseases as required by law, in California, has improved greatly during recent years. The increased efficiency is indicated in the following table, which represents the total numbers of cases of such diseases reported in California since 1913. Separate tabulations for influenza and measles, annually, since 1917, are appended. Since these two diseases move in cyclic waves, their segregation emphasizes the routine efficiency with which all other communicable diseases are reported.

CALIFORNIA

Total Number Cases of Communicable Diseases Reported, 1913-1936

Year	Total	Influenza	Measles
1913	15,499	.....	.....
1914	31,792	.....	.....
1915	36,952	.....	.....
1916	36,358	.....	.....
1917	65,134	.....	.....
1918	306,194	230,845	23,018
1919	124,998	82,682	3,967
1920	138,703	66,183	17,030
1921	78,707	2,565	14,246
1922	101,576	45,433	1,048
1923	96,980	8,081	26,882
1924	108,591	1,106	27,373
1925	81,511	2,636	2,396
1926	96,255	6,097	18,281
1927	141,896	1,645	58,963
1928	144,969	46,062	4,002
1929	107,140	5,803	4,417
1930	144,653	1,778	46,968
1931	119,269	7,016	29,748
1932	126,276	17,423	13,651
1933	130,709	5,208	28,051
1934	134,823	1,555	31,962
1935	154,004	4,478	33,644
1936	202,861	27,205	53,837

Your Health! A New Radio Program for Schools by the American Medical Association.—The American Medical Association and the National Broadcasting Company present each week over the Red network a program of dramatized health messages intended to furnish graphic supplementary material for health teaching in junior and senior high schools. Much of this material is also useful for elementary schools, especially in the higher grades.

The program is broadcast each Wednesday from 2 to 2:30 p. m., eastern standard time, one hour earlier central time, two hours earlier mountain time, and three hours earlier Pacific time. The list of stations to which the program is available appears herewith. It should be noted that any station may or may not broadcast the program. Neither the American Medical Association nor the National Broadcasting Company has any control over local broadcasting, since this is a noncommercial program. Evidence of local interest may have influence with station managements.

The program will be presented in nine groups of four programs each, beginning October 13, 1937, and running

consecutively through June 15, 1938. Individual programs may be subject to cancellation for national or international emergencies calling for concentration of radio time in imperative public service. In such cases the subsequent dates will not be affected, but the canceled program will simply be dropped. The Red network includes the following California stations: KPO, San Francisco; KFI, Los Angeles; KFBK, Sacramento; KWG, Stockton; KMJ, Fresno; KERN, Bakersfield.

DATES AND TOPICS OF WEEKLY BROADCASTS

1937

Personal Health

October 13—Learning About Health: Introductory, explanatory.

October 20—Growing for Strength and Beauty: Favorable and unfavorable factors in growth and the maintenance of normal weight.

October 27—Seeing and Hearing Well: Hearing and vision; how to conserve these; how to recognize deviations; how to prevent loss.

November 3—Striving for Better Bodies: So-called physical defects; their recognition; what can be done about them.

Hygiene

November 10—Playing for Fun: Health values and hazards in sports and recreation, including football.

November 17—Fresh Air, Fresh Clothes and Fresh Skin: Ventilation; clothing; bathing.

November 24—Rest, Relaxation, Refreshment: All work and no play, or all play and no rest—bad for health.

December 1—Tuberculosis, Foe of Youth: How bad habits of hygiene and unwise living, plus infection, favor tuberculosis.

Diet

December 8—It Takes All Good Foods: A well rounded diet and how to get it.

December 15—Milk from Farm to Table: The production, transportation, pasteurization and home care of milk; its place in the diet; processed milks.

December 22—Vitamins, Minerals and Common Sense: More about a balanced diet in special relation to minerals and vitamins.

December 29—Dietary Fads: Facts versus fallacies in relation to prevalent false notions about diet.

1938

Contagious Diseases

January 5—Sneezes and Sniffles: Cause, spread, prevention of colds, pneumonia and influenza; importance of early medical care.

January 12—Scarlet Fever, Measles and Whooping Cough: Modern attitudes toward these diseases; their prevention by community coöperation.

January 19—Smallpox and Diphtheria: Unnecessary diseases; preventable by immunization of infants.

January 26—Poliomyelitis: Information about the disease; coöperation with President's Birthday Ball.

Diseases of Middle Age

February 2—Rheumatism and Arthritis: Known factors in the causation of arthritis and its care.

February 9—Healthy Hearts and Arteries: Known ways of protecting the heart against infection and hygienic abuse; how to live with heart disease.

February 16—Don't Fear Cancer—Fight It: Known factors in the cause, prevention and treatment of cancer.

February 23—Overcoming Diabetes: Individual efforts plus medical aid will win against diabetes.

Public Health

March 2—Water, Waste and Sanitation: Importance of community control of water supplies, sewage disposal and general sanitary matters.

March 9—Protecting Perishable Foods: What the community can and must do to protect fresh foods such as fish, fruits, vegetables, meats, bakery goods.

March 16—Keeping Books on Health: The meaning and the importance of vital statistics, contagious disease reporting and community health records.

March 23—Catching Disease from Animals: Rabbit fever, rabies, undulant fever and similar infections, and what can be done about them.

Health Education

March 30—A Fool for a Day: Fallacies and popular beliefs that are not true and that influence behavior in a manner detrimental to health.

April 6—Living with People: Elements of mental hygiene; getting along with people; adjustment to the environment.

April 13—It May Happen to You: Accidents in the home and on the highway and ways to avoid them.

April 20—Who Chooses Your Doctor? The characteristics of a reputable physician as distingulshed from cults, quacks, fakers, faddists or exploiters.

Mothers and Children

April 27—Healthier Babies: Daily routine of the healthy baby; medical supervision; feeding.

May 4—Healthier Mothers: General advice for the expectant mother; good for boys and girls to know about.

May 11—Hospitals Aid Health: The place of the hospital in the health program of the individual and the community.

May 18—Runabouts, 1938 Model: The preschool child and the health and personality problems of that age.

Using Health Knowledge

May 25—The Health Check-Up: Periodic health examination and what follows, and why.

June 1—Vacation Plays and Misplays: Making the vacation a real contribution to health and recreation.

June 8—Graduation and Then What? A new phase of life begins at commencement, and health contributes to success.

June 15—What Medicine Offers for Health: Flashes from the American Medical Association meeting at San Francisco, giving highlights of medical progress.

LETTERS

Concerning the October, 1937 session of the Association of American Medical Colleges in San Francisco.

STANFORD UNIVERSITY SCHOOL OF MEDICINE

September 3, 1937.

To the Editor:—The 1937 annual convention of the Association of American Medical Colleges will be held in San Francisco on October 25, 26, and 27. The programs on each of these mornings concern medical education and relations of medical schools to the medical profession.

The members of your Association are cordially invited to attend these sessions. The meetings will all take place at the Fairmont Hotel.

Very truly yours,

L. R. CHANDLER, M. D.,
Vice-President, Association of American Medical Colleges.

Concerning San Francisco Public Health Department suggestions on the subject of "Anterior Poliomyelitis."

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC HEALTH

September 8, 1937.

To the Editor:—I am enclosing copy of a news release issued today on the subject of acute anterior poliomyelitis. I believe you will be interested in this material.

Sincerely,

J. C. GEIGER, M. D.,
Director of Public Health.

* * *

September 8, 1937.

The Present Status of the Situation With Reference to Acute Anterior Poliomyelitis

According to information received by the California State Department of Public Health, a sharp rise in the incidence of acute anterior poliomyelitis (infantile paralysis) during July and August has been reported from several counties, principally in the southern part of the state. As yet, this has not been apparent in San Francisco, as there were two cases reported in July, none in August, and two thus far in the month of September.

For the information of physicians and parents, the Director of Public Health wishes to go on record with regard to

certain procedures in the event that an increase does occur in this city:

1. *Schools.*—A definite recommendation that schools remain open. Careful studies made throughout the country in cities opening schools and closing schools fails to show any increase in the incidence of the disease where schools are kept open. Therefore, the Director of Public Health reiterates that the closing of schools or opening of schools is apparently of no significance in the incidence of the disease.

2. *Serum Therapy.*—The Director of Public Health reiterates his position taken during the outbreak of 1934, namely, that the use of convalescent serum in adequate doses early in the course of the disease and *before* paralysis occurs may be of some benefit, but, because of the difference of opinion among authorities, its use should not in any way be considered obligatory, but should rest with the judgment of the attending physician. The Director of Public Health also approves of the use of blood transfusions as a permissive form of treatment in the bulbar type of disease. Because of the limited supply of this convalescent serum, its use as a prophylactic, either in contacts to cases of the disease or to the general public, is definitely contraindicated.

3. *Chemotherapy.*—The recent widespread publicity given to the use of zinc sulphate spray in recent outbreaks of poliomyelitis (infantile paralysis) throughout the country has caused considerable interest locally among parents, who, looking forward to a possible increased incidence of the disease on the Pacific Coast, naturally desire to avail themselves of any aid in preventing this disease. Doctor Schultz of Stanford University, by extensive experimental work, has demonstrated that one per cent solution of zinc sulphate, one per cent pontocain and one-half per cent sodium chlorid in distilled water is the best chemical spray, experimentally, on monkeys.

There is definite evidence that such preparations, when properly applied, will afford a remarkable degree of protection to *monkeys.* Whether this will follow in the case of the human being has yet to be determined. The use of this method must be strictly limited until the proper technique has been worked out, as the method of application is definitely unsettled at present. Attention is called to the possible side action of the local anesthetic, and the physician giving the treatment should be on the lookout for symptoms of poisoning. Attention is further called to the hazards of using a long-tipped atomizer in the vicinity of the cribriform plate. This method also is impracticable in the cases of small children, for whom the instillation of the solution in the Proetz position is advocated. It is particularly pointed out that any attempts of home medication are absolutely valueless. It may be deemed advisable to make a preliminary application of a substance such as ephedrin to shrink the mucus membranes before applying the zinc solution. The local anesthetic and the shrinking agent could be used together. The injections should be given once every two or three weeks, as determined by a returning sense of smell. No change in the constituents of the solution should be made without an investigation as to the experimental result on monkeys. It is recommended that the use of this solution be optional with the family of actual contacts to the disease. The treatments shall be conducted in centers to be determined at a future date. These centers will be under adequate supervision, and any physician who wishes to learn the technique can attend and be instructed by a proficient specialist. A record of all treatments given in these centers shall be kept and, in addition, there shall be a follow-up of the patients receiving the treatment. Zinc sulphate spray, if used at all, must be under the direction of a competent physician, with the understanding that it is used on an experimental basis only.

These suggestions are the result of a meeting of the Advisory Committee to the Department of Public Health on Acute Anterior Poliomyelitis at the San Francisco Hospital this day.

Sincerely,

J. C. Geiger, M. D.,
Director of Public Health.

Concerning Industrial Accident patients.

Long Beach, September 4, 1937.

To the Editor:—At the last meeting of the Academy of Medicine of Long Beach, California, the matter was discussed of Compensation Industrial Accident cases. It was pointed out by several present that the patient does not have free choice of doctors, even though the law specifically states that he does have this right. Perhaps, just to call attention to this difficulty, this resolution was passed, to be sent to your journal:

Resolved, That Compensation Industrial Accident cases should, as according to the law, have the choice of their physician.

Of course, it is true that some practitioners of medicine are not, perhaps, qualified to take care of any or all accident cases who might come into their offices, but the denial of this legal right, of choice of physicians at such a time, we have the feeling, does not find its origin in the inability of the doctors of the patients' choice of handling the case, but rather because of, what we suspect, as being prearranged agreements between doctors and certain employers, or agents of those employers, and who, of course, definitely violate both the letter and the spirit of the California State Compensation Industrial Accident Act.

Yours very truly,

J. R. Silverthorn, M. D., *President.*
Paul Southgate, M. D., *Secretary.*

Concerning action by medical, dental, and pharmaceutical professions.

Southern California Retail Druggists' Association, Ltd.

Los Angeles, August 24, 1937.

To the Editor:—I received your August copy of California and Western Medicine with an item marked "United Action by the Professions of Medicine, Dentistry, and Pharmacy."

This certainly hits the nail on the head and explains action that should have been taken years ago.

There can be no reason why these three allied professions should not work harmoniously together, and there was more evidence of this during the last session of our Legislature than at any time in the past.

It was a genuine pleasure to work with representatives of the medical and dental professions; and through our united efforts many very dangerous bills were defeated.

I plan to go to Chicago on Friday and later to go to St. Louis to attend the meeting of our National Association during the last week in September. After that date, when convenient to the medical and dental groups, I think it would be mighty fine if we could have a joint conference and not wait until something has happened.

There can be no doubt that attempts will be made again to pass a bill to provide for state medicine. This we can ward off if we are properly prepared.

Again thanking you, I am

Sincerely yours,

Frank E. Mortenson,
Executive Secretary.

Concerning clam quarantine order: State Board of Public Health.

September 13, 1937.

To the Health Officers:

Supplementing our mussel quarantine order of May 26, 1937, a quarantine of all clams from the ocean shore of California, extending from the southern boundary of Los Angeles County north to the California-Oregon boundary, with the exception of the bay of San Francisco, is hereby established.

All health officers and food inspectors are hereby instructed to enforce the provisions of this quarantine and to prohibit the taking, sale, or offering for sale, of clams gathered in the district specified. This quarantine order shall be effective until further notice.

Said action is taken for the preservation of the public health.

W. M. Dickie, M. D.,
Director of Public Health.

MEDICAL JURISPRUDENCE†

By HARTLEY F. PEART, ESQ.
San Francisco

Definition of Chiropractic in the California Chiropractic Act: Have Chiropractors the Legal Right to Practice Medicine and Surgery in California?

The Chiropractic Initiative adopted by the people of this State in 1922 authorizes the holder of a chiropractic license "to practice chiropractic in the State of California as taught in chiropractic schools or colleges; and, also, to use all necessary mechanical, and hygienic and sanitary measures incident to the care of the body, but shall not authorize the practice of medicine, surgery, osteopathy, dentistry or optometry, nor the use of any drug or medicine now or hereafter included in materia medica." (Deering's General Laws, 1931, Act 4811, Sec. 7.)

The first two cases relating to the definition of chiropractic to come before the Appellate Courts after the people had adopted the Chiropractic Initiative held that chiropractors are authorized to perform the following acts:

1. To practice chiropractic as taught in chiropractic schools or colleges even though in some instances such practice "would have been construed as the practice of medicine, surgery, osteopathy, dentistry, or optometry prior to the adoption of the Chiropractic Initiative"; and

2. To use all necessary mechanical, hygienic, and sanitary measures incident to the care of the body which are included in chiropractic as taught in chiropractic schools or colleges together with any other necessary medical, hygienic, and sanitary measures the use of which would not constitute the practice of medicine or surgery. *People* vs. *Schuster*, 122 Cal. App. (Suppl.) 790; and *Evans* vs. *McGranaghan*, 4 Cal. App. (2d) 202 at 204.

Application of the construction given to Section 7 of the Chiropractic Act in *Evans* vs. *McGranaghan* carried to its logical conclusion reduces itself to this: If a chiropractic school or college should give a brief course in surgery, then all graduates of that chiropractic institution would be entitled to engage in the practice of surgery. The same result would follow with respect to any other field within the practice of medicine.

However, the latest decision construing Section 7 of the Chiropractic Act is directly contrary to the conclusions reached in *People* vs. *Schuster* and in *Evans* vs. *McGranaghan*. In the case entitled *In re Hartman*, 10 Cal. App. (2d) 213, the District Court of Appeal for the Fourth Appellate District took the position that a chiropractor may practice chiropractic "as taught in chiropractic schools or colleges" but may not do anything that constitutes the practice of medicine or surgery, even though he may have received instruction in a chiropractic school in the particular subject sought to be practiced.

In re Hartman was decided November 15, 1935, and involved the following facts: Hartman was prosecuted criminally for practicing medicine without a license. He was tried and convicted. He then petitioned for a writ of habeas corpus, alleging that he was a licensed chiropractor; that he possessed the degree of naturopath doctor (N. D.), issued him by a chiropractic college; that he diagnosed and treated the disease of cancer according to the "Koch" method by injection of a fluid called antitoxin or split-protein and that this method of treating cancer is taught in chiropractic schools and colleges of this State. Two licensed physicians and surgeons qualified as experts in medicine and surgery and testified that in their opinion the acts done by Hartman constituted the practice of medicine and surgery.

Thus Hartman contended that he was entitled to perform the acts in question because they were included in the subjects which he studied in a chiropractic college. If *Evans* vs. *McGranaghan* had been followed Hartman's contention would have been upheld; however, the Court rejected his argument and held as follows:

"It is argued that the petitioner was authorized to possess and make such use of these instruments by the above-quoted portion of Section 7 of the Chiropractic Act, since the use of such instruments is taught in chiropractic schools or colleges and also because it is merely a measure incident to the care of the body.

"If the possession and use of such instruments is authorized by this section it is only because the license provided for authorizes such methods of treatment as a part of the practice of chiropractic. While the section contains the additional clause 'as taught in chiropractic schools or colleges,' the entire section must be taken as a whole and it cannot be taken as authorizing a license to do anything and everything that might be taught in such a school. A short course in surgery or one in law might be given, incidentally, and it would not follow that the section would then authorize a licensed chiropractor to engage in such other professions. It is not sufficient that a particular practice is taught in such a school. Under the terms of the statute it must meet the further test that it is a part of chiropractic, whatever that philosophy or method may be, *and further that it shall not violate the provision which expressly forbids the practice of medicine. If such a practice is not a part of chiropractic but does constitute the practice of medicine, it is not authorized under this license even though it may be taught in such a school.*"

Whether or not the courts will continue to follow the reasoning expressed in the *Hartman* case is, of course, impossible to foretell. However, it is significant that the first case to be decided after *Evans* vs. *McGranaghan* repudiated the reasoning employed in that decidedly amazing decision.

The language employed in Section 7 of the Chiropractic Initiative is, to say the least, confusing and incomplete. It effectively leaves one in complete darkness with respect to the question: What is chiropractic? If the curricula of chiropractic schools vary, is the sum of all the subjects taught "chiropractic" or are only the subjects taught in all of the schools to be included in "chiropractic"? In any event, it appears to be perfectly clear from the language of Section 7 that medicine and surgery are *under no circumstances* to be included in chiropractic. Thus it must be concluded that the reasoning of *In re Hartman* is correct and that *Evans* vs. *McGranaghan* and *People* vs. *Schuster* were erroneously decided.

† Editor's Note.—This department of CALIFORNIA AND WESTERN MEDICINE, containing copy submitted by Hartley F. Peart, Esq., will contain excerpts from and syllabi of recent decisions and analyses of legal points and procedures of interest to the profession.

SPECIAL ARTICLES

REMARKS ON BIOPSIES*

The reason for doing a biopsy is to increase the accuracy of diagnosis. In combining numerous reports on the accuracy of biopsy as contrasted with clinical diagnosis, the following figures may be quoted: The clinical diagnosis in over a thousand cases was correct in 65 per cent; the biopsy diagnosis was correct in 90 per cent. In 7 per cent the tissues for biopsy were so poorly chosen, were dried out, improperly fixed, or otherwise rendered unsuitable that diagnosis could not be made.

Is there danger in doing a biopsy? Experimentally, Wood showed in mice that biopsy did not increase the number of lung metastases in carcinoma of the breast. But it has been shown repeatedly that massage of animal tumors, even squeezing and handling, is distinctly dangerous. The statement may be accepted as a generalization that, if biopsy is done properly, there is much less danger of spreading the tumor than if numerous clinical examinations are made by palpation. Even one examination with squeezing and pressure may be fatal.

The methods for doing biopsies can be classified as (1) by the knife, cautery, or endotherm apparatus; (2) by aspiration; and (3) by punches, gouges, and similar equipment.

The development of the loop attached to a high-frequency apparatus has rendered numerous theoretical objections invalid as well as made the process easier. A bit of tissue

* Editorial from *The Pennsylvania Medical Journal*, March, 1937.

is merely scooped out, the current sealing off blood vessels and lymphatics.

The aspiration method has been used most frequently in soft bone tumors. In about 60 per cent of cases suitable material can be aspirated, but of these, few yield material capable of really accurate diagnosis and usually not in early cases.

Various instruments have been devised which can be plunged into a tumor and when withdrawn will pull or cut a piece of tumor loose and bring it along. Malignancy of the breast, prostate, lung, and other organs has been diagnosed by this means, but again many specimens are unfitted for one reason or another for the pathologist to take the responsibility of diagnosis.

Naturally the details vary in different situations. Take the breast and lip as examples. When a lump in the breast is of doubtful clinical diagnosis the tumor should be excised *in toto* with the endotherm knife. Immediate examination of the entire tumor is made and, if malignant, the surgeon should be prepared to complete the radical operation. In about 80 per cent of the cases the diagnosis can be made by gross inspection and palpation; in the others frozen sections will add 15 per cent more to the percentage, leaving a margin of approximately 5 per cent which cannot be safely diagnosed by this method. In most doubtful cases the lump is not a malignant tumor. The following must be observed in this procedure: (1) If the frozen section cannot be cut and stained properly in five minutes, take ten minutes, for the additional five minutes will not jeopardize the patient but will indeed add to the chances for accuracy in diagnosis; (2)if the tumor is malignant, gloves and instruments should be changed and the operation proceeded with (no biopsies of this type should be done unless the stage is completely set for the possible completion of the next procedures); (3) permission of the patient for the complete operation must be obtained before anything is started.

In the case of the lip the endotherm loop removes a bit of tumor tissue plus a bit of surrounding, apparently healthy, tissue. The diagnosis of malignancy is best made on changes in architecture, that is, organization of the cells, and cannot be made with sufficient accuracy on cellular detail alone. Therefore, the relationship of tumor to surrounding tissue in most instances is the greatest determining factor to the pathologist.

It should be remembered that pathologists are also physicians, and the history of the patient is much appreciated. In fact, since the physiologic has been added in many instances to the pathologic in diagnosis, the history is often essential to complete sizing up of a case. . . .

As a summary, biopsy is the most accurate method known for the diagnosis of tissues. Propaganda exerted upon the profession and patients alike is, undoubtedly, bringing individuals earlier for treatment. This opportunity must be cultivated to the limit, for all of the efforts toward removing malignancy depend on cutting it out or burning it out *in toto*. Therefore, for early diagnosis, with proper precaution, biopsies must be done and the tissue placed in care of a competent pathologist.

STATE MEDICINE*

Protests accumulate against the proposal to nationalize medical treatment and establish a system of federal health insurance. The American Medical Association, American physicians studying abroad, groups of alert laymen, and, more lately, the editor of the *Journal of the American Medical Association*, on return from a trip to Europe, have warned against the dangers of the scheme. Their testimony seems to indicate clearly its disadvantages, from both a public and a private point of view, and on moral and social as well as purely physical grounds.

It is taken for granted that the interests of the public are paramount in any contemplation of the scheme, although the effects upon the physician himself of socializing his profession must be deleterious if he is turned into a machine, a cog in a medical bureaucracy, and his often helpful personal relationships with his patient destroyed. From the point of view of thousands who do not resort to medical aid, the tax upon them is unfair, and the increased public cost, to the taxed employer as well as to the debt-burdened state, is an item to be considered.

* For editorial comment, see page 219.

The Associated Press recently carried a report of an article contributed to a medical publication in Vienna by a group of American physicians doing advanced study there which severely indicted the health insurance plan as practiced abroad and warned the United States against following the foreign example.

"The sick fund creates an unwillingness to work," they wrote, "and the desire for recovery from illness is undermined by the possibility of getting money without working." In other words, it is profitable for the insured to be sick or to pretend to be sick.

"Nation's Business," organ of the Chamber of Commerce of the United States, a few months ago undertook a painstaking survey of health insurance systems abroad, especially in Germany and England, and found malingering to be common, with temptations constantly being placed before examining physicians.

It is obvious what the cost might be in the United States, with a medical insurance bureaucracy set up in Washington and down through every state to the smallest local governmental subdivisions; with taxes levied against every employer and employee, and additional state appropriations demanded to meet the federal grants.

Dr. Charles Gordon Heyd, President of the American Medical Association, last winter pointed out a lurking danger under the nationalized system when he said: "The practice of medicine in the lower economic groups [under the system] becomes largely a prescription practice—a brief consultation, a scant history, a bottle of medicine." This is confirmed by Sir Kingsley Wood, British Minister of Health, who told the House of Commons: "We are rapidly becoming a nation of medicine drinkers."

To the all-important question, "Does health insurance and nationalized medical treatment reduce illness or prevent it?" the League of Nations replies that in European countries having this system the rate of certain so-called communicable diseases has increased and the infant mortality rate and that from lung diseases is higher.

Summed up, the socialized medicine scheme, in the view of its investigators, stands indicted on the following counts: It promotes dishonesty on the part of the insured and the physician who collects a fee; it increases public costs of government and individual costs of living; it promotes deleterious consumption of drugs, and it actually promotes sickness. Other reasons exist for rejecting the medical bureaucracy scheme, but those enumerated seem sufficient to condemn it.—*Christian Science Monitor,* September 4, 1937.

CALIFORNIA BOARD OF MEDICAL EXAMINERS: ROSTERS OF RECENT LICENTIATES

On September 2, 1937, Charles B. Pinkham, M. D., Secretary-Treasurer of the Board of Medical Examiners of the State of California, reported results of the written examination held in San Francisco, June 29 to July 1, 1937, inclusive. The examination for physicians and surgeons covered nine subjects and included ninety questions; the examination for drugless practitioners covered seven subjects, and included seventy questions; and the examination for chiropodists covered six subjects and included sixty questions. An average of 75 per cent is required to pass. One hundred and seventy-eight applicants wrote the examination, including one hundred and fifty-four physicians and surgeons, twenty-three chiropodists, and one drugless practitioner. Included in the physicians and surgeons applicants were several graduates of foreign medical schools.

The highest mark for physicians and surgeons (92 3/9 per cent) was made by Harry J. Borson, M. D., 249 Edgewood Avenue, San Francisco, a graduate of the University of California Medical School, May 22, 1937.

The following is a list of successful applicants:

PASSED: EXAMINATION REPORT OF SEPTEMBER 2, 1937

Physicians and Surgeons

Abrahamson, Arthur Joseph, San Francisco, University of California Medical School, California.

Adams, George Furman, Oakland, University of Arkansas School of Medicine, Arkansas.

Aggeler, Paul Michael, San Francisco, University of California Medical School, California.

Albertson, Henry Kendall, San Diego, Northwestern University Medical School, Illinois.
Anderson, Frank Manter, Los Angeles, University of Southern California School of Medicine, California.
Anderson, Kermit Hudson, San Francisco, Rush Medical College, Illinois.
Armanini, George Bert, San Francisco, Stanford University School of Medicine, California.
Auerbach, Joseph, San Francisco, University of Michigan Medical School, Michigan.

Barnes, Le Roy John, Oakland, Rush Medical College, Illinois.
Barrett, Thomas Francis, Sausalito, Creighton University School of Medicine, Nebraska.
Bartlett, John Carleton, Oakland, University of Southern California School of Medicine, California.
Berliner, Bernhard, San Francisco, Albert Ludwig University, Freiburg, Germany.
Blanchard, Leland Bowman, San Francisco, Stanford University School of Medicine, California.
Bledsoe, Clarence West, Oakland, University of Chicago School of Medicine, Division of Biological Sciences. Illinois.
Blume, Frederick Elmer, San Leandro, Stanford University School of Medicine, California.
Borson, Harry J., San Francisco, University of California Medical School, California.
Borson, Josephine Esterly, San Francisco, University of California Medical School, California.
Bricca, Rafael Peter, San Francisco, University of Cincinnati College of Medicine, Ohio.
Brody, Yale, New York, Dalhousie University Faculty of Medicine, Nova Scotia, Canada.
Bryant, Alva Luel, Jr., San Francisco, University of Southern California School of Medicine, California.
Burroughs, Clement Doss, San Francisco, University of Arkansas School of Medicine, Arkansas.
Butler, Leo Joseph, San Francisco, University of California Medical School, California.

Campisi, Dominic Albert, San Jose, Creighton University School of Medicine, Nebraska.
Caulkins, Charles Colgrove, San Francisco, University of California Medical School, California.
Clegg, John Gibson, Los Angeles, Stanford University School of Medicine, California.
Cobb, Dudley-Manchester, Jr., Los Angeles, College of Medical Evangelists, Loma Linda, California.
Cope, James Hallam, Jr., Pleasanton, Jefferson Medical College, Pennsylvania.

Dorgeloh, Justin Redman, San Francisco, Stanford University School of Medicine, California.
Doudna, Calvin Thomas, Oakland, University of Wisconsin Medical School, Wisconsin.
Dugan, Roger John, Sacramento, George Washington University Medical School, District of Columbia.
Dygert, Gilbert Wesley, Oakland, Rush Medical College, Illinois.
Dyke, Louis Henry, Jr., Oakland, University of Southern California School of Medicine, California.

Eichorn, Karl Birkel, San Francisco, University of California Medical School, California.

Fahlen, Charles Cuthbert, San Francisco, Stanford University School of Medicine, California.
Fehlmann, Frederick Henry, San Diego, University of Michigan Medical School, Michigan.
Ferber, David Martin, San Francisco, University of California Medical School, California.
Ferree, Virgil Delbert, San Bernardino, College of Medical Evangelists, Loma Linda, California.
Fishbein, Abraham Allan, San Francisco, University of California Medical School, California.
Fountain, William Edwin, Merced, Stanford University School of Medicine, California.

Galt, Curtis Martin, Alexandria, Nebraska, University of Nebraska College of Medicine, Nebraska.
Gilbert, William Paul, Los Angeles, College of Medical Evangelists, Loma Linda, California.
Gill, Gerald George, San Francisco, University of California Medical School, California.
Graham, Howard Franklin, Oakland, University of California Medical School, California.

Hansen, Oluf Steffen, Los Angeles, College of Medical Evangelists, Loma Linda, California.
Hardin, Robert Sims, Ivanhoe, Creighton University School of Medicine, Nebraska.
Harmon, Ruth Emma, Berkeley, University of California Medical School, California.
Hartwell, Donald Clifford, San Bernardino, College of Medical Evangelists, Loma Linda.
Heney, Richard Bruce, San Francisco, University of California Medical School, California.
Hepp, Virgil Eugene, Oakland, Stanford University School of Medicine, California.
Hicks, Elizabeth Shreve, San Francisco, University of California Medical School, California.
Holko, John Eugene, San Francisco, University of Michigan Medical School, Michigan.
Hoover, Paul William, Oakland, University of Arkansas School of Medicine, Arkansas.
Horswill, Harry Lee, Fresno, University of Oregon Medical School, Oregon.
Huckvale, William Sidney, Canada, University of Alberta Faculty of Medicine, Canada.
Husser, George Dalrymple, San Francisco, University of California Medical School, California.

Innocent, George Grunewald, Fresno, College of Medical Evangelists, Loma Linda, California.

Jing, Fred Quong, Fresno, Stanford University School of Medicine, California.

Keenan, Peter Joseph, San Francisco, Crelghton University Medical School, Nebraska.
Kelley, Douglas McGlashan, San Francisco, University of California Medical School, California.
Kelley, Kenneth, San Jose, Northwestern University Medical School, Illinois.
Klinefelter, James Archibald, Sacramento, Stanford University School of Medicine, California.
Kraushaar, Isaac Newton, Orange, College of Medical Evangelists, Loma Linda.

Laird, Terry Turner, Oakland, Stanford University School of Medicine, California.
Lastreto, Emilio Donald, San Francisco, Rush Medical College, Illinois.
Lawry, Edwin Vance, San Francisco, Cornell University Medical College, New York.
Leary, James Jeremiah, Jr., San Francisco, University of California Medical School, California.
Lee, Dora Ames, Stockton, University of California Medical School, California.
Lee, Gilbert (M. B.), Los Angeles, University of Minnesota Medical School, Minnesota.
Leicester, Katherine Haworth, San Francisco, University of California Medical School, California.
Lentz, Joseph Scarborough, San Francisco, Stanford University School of Medicine, California.
Lesser, Robert Philipp, San Francisco, Friedrichs Wilhelm University, Berlin, Germany.
Lestrohan, Paul Felix, San Francisco, Stanford University School of Medicine, California.
Levinson, Laura, Sacramento, University of California Medical School, California.
Lipsitch, Lester Samuel, San Francisco, Stanford University School of Medicine, California.
Luce, James Coy, San Francisco, University of California Medical School, California.

Macdonald, William Hugh, San Francisco, Rush Medical College, Illinois.
Martin, Purvis Leet, San Francisco, University of California Medical School, California.
Mathews, Benton Dunnegan, San Francisco, Stanford University School of Medicine, California.
Maximov, Alexis Gregory, San Francisco, University of California Medical School, California.
McCausland, John Daniel, Chula Vista, Washington University School of Medicine, Missouri.
McDonald, Dorothy Elliott, San Francisco, University of California Medical School, California.
Messenger, Thomas Troupe, Fresno, University of Arkansas School of Medicine, Arkansas.
Meyer, Hans, San Francisco, Friedrich Wilhelms University, Germany.
Miller, Henry, San Francisco, University of California Medical School, California.
Miller, Walter Robert, Oakland, University of California Medical School, California.
Mirick, George Swope, San Francisco, Johns Hopkins University School of Medicine, Maryland.
Mooy, John Edward, Glendale, College of Medical Evangelists, Loma Linda, California.
Morris, George William, Santa Barbara, University of Nebraska College of Medicine, Nebraska.
Moses, Paul Josef, University of Cologne, Germany.
Moss, Abner Jules, University of Buffalo Medical School, New York.
Myers, Jack Duane, San Francisco, Stanford University School of Medicine, California.

Needles, John Walter, San Francisco, University of Southern California School of Medicine, California.
Newhouse, Robert Milton, San Francisco, Stanford University School of Medicine, California.
Newman, William Jesse, San Francisco, Stanford University School of Medicine, California.

Northway, Frederick James, San Francisco, Stanford University School of Medicine, California.
Norton, John Archibald, Sacramento, Rush Medical College, Illinois.
Novacovich, George George, San Francisco, Stanford University School of Medicine, California.
Null, John William, San Francisco, Stanford University School of Medicine, California.
Ogaard, Adolph Thompson, San Francisco, Stanford University School of Medicine, California.
Otten, Alex John (M. B.), Oakland, Northwestern University Medical School, Illinois.
Peters, Harry Emerson, Jr., San Francisco, University of California Medical School, California.
Powers, Clara Louise, Los Angeles, Stanford University School of Medicine, California.
Prewitt, John Hanna, San Francisco, University of Pennsylvania School of Medicine, Pennsylvania.
Quinn, William Joseph, San Francisco, Washington University School of Medicine, Missouri.
Rankin, Ambrose Bradley, Los Angeles, College of Medical Evangelists, Loma Linda, California.
Richardson, Arthur Pawley, San Francisco, Stanford University School of Medicine, California.
Robinson, Thelma Theresa, Los Angeles, University of Michigan Medical School, Michigan.
Rosen, Moris Simon, San Francisco, University of California Medical School, California.
Rossi, Felix Rafael, Jr., San Francisco, University of California Medical School, California.
Rutherford, Miriam Hook, San Francisco, University of California Medical School, California.
Scarborough, Charles Gerald, San Francisco, Stanford University School of Medicine, California.
Schaumloffel, Roland Abraham, Loma Linda, College of Medical Evangelists, Loma Linda.
Schiff, Hans, Los Angeles, University of Cologne Medical Faculty, Germany.
Schmidt, Allen Robert, Merced, University of Southern California School of Medicine, California.
Seiler, William Edwin, San Francisco, Creighton University School of Medicine, Nebraska.
Shapiro, Edward, San Francisco, University of California Medical School, California.
Shelton, Robert McNeil, San Francisco, Stanford University School of Medicine, California.
Shimkin, Michael Boris, San Francisco, University of California Medical School, California.
Simmonds, Raymond Julius, Imola, Stanford University School of Medicine, California.
Sleath, Jack Crisp, San Francisco, Yale University School of Medicine, Connecticut.
Solberg, Lawrence Arthur, San Francisco, Rush Medical College, Illinois.
Spining, William Duncan, San Francisco, University of California Medical School, California.
Stewart, Robert Alexander, San Francisco, Harvard University Medical School, Massachusetts.
Storey, Alfred Dean, San Francisco, Stanford University School of Medicine, California.
Swift, Coe Tanner, Madera, Jefferson Medical College, Philadelphia, Pennsylvania.
Taira, Kikuo Henry, Fresno, University of California Medical School, California.
Tiffin, Mary Elizabeth, San Francisco, Stanford University School of Medicine, California.
Tobias, Siegfried Fritz, Grass Valley, University of Heidelberg, Germany.
Todd, Max Alexander, San Francisco, Stanford University School of Medicine, California.
Torgerson, Thomas Myron, San Francisco, Rush Medical College, Illinois.
Turkel, Abraham William, Los Angeles, University of Southern California School of Medicine, California.
Voris, Albert Travers, San Francisco, Stanford University School of Medicine, California.
Walker, Irwin Seth, Loma Linda, College of Medical Evangelists, Loma Linda.
Webster, George Estep, San Francisco, Stanford University School of Medicine, California.
Webster, George Van O'Linda, Jr., San Francisco, Stanford University School of Medicine, California.
Weinstein, Harry, San Francisco, University of California Medical School, California.
Weizer, Ernest Andrew, Dunsmuir, Loyola University School of Medicine, Illinois.
Wells, Walker Marshall, San Francisco, Stanford University School of Medicine, California.
Wendt, Douglas Dudley, San Jose, Stanford University School of Medicine, California.
Weyrauch, Helen Blanche, San Francisco, Johns Hopkins University School of Medicine, Maryland.
Winick, Benjamin Israel, San Francisco, State University of Iowa College of Medicine, Iowa.
Zeff, Maurice Leon, San Francisco, University of California Medical School, California.
Zelman, Julius, San Bernardino, University of California Medical School, California.
Zink, Wiley Carl, Oakland, University of Nebraska College of Medicine, Nebraska.

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On September 20, 1937, Doctor Pinkham reported results of the written examination held in Los Angeles, July 20 to July 22, 1937, inclusive. The examination for physicians and surgeons covered nine subjects and included ninety questions; and the examination for chiropodists covered six subjects and included sixty questions. An average of 75 per cent is required to pass. One hundred and thirty-six applicants wrote the examination, including one hundred and twenty-nine physicians and surgeons, seven chiropodists. Included in the physicians and surgeons applicants were several graduates of foreign medical schools.

The highest mark for physicians and surgeons (90 per cent) was made by John H. Leary, M. D., Los Angeles General Hospital, Los Angeles, a graduate of the College of Medical Evangelists, California, June 13, 1937.

The following is a list of successful applicants:

PASSED

Physicians and Surgeons

Aaron, Ruth, Los Angeles, University of Chicago Division of Biological Sciences, Illinois.
Altig, William Ward, Alhambra, College of Medical Evangelists.
Anderson, Ernest Richard V., Los Angeles, University of Southern California School of Medicine.
Anderson, George Henry, San Francisco, State University of Iowa College of Medicine.
Armstrong, James Richard, Oakland, Northwestern University Medical School, Illinois.
Beeler, Thomas Taylor, Jr., San Diego, University of Oklahoma School of Medicine.
Bell, Ralph Marion, Los Angeles, Louisiana State University Medical Center.
Bishop, Harry Arthur (M. B.), Los Angeles, Northwestern University Medical School, Illinois.
Blomquist, Olov Albert, Los Angeles, College of Medical Evangelists.
Bradley, Millard Calvin, Los Angeles, College of Medical Evangelists.
Burston, Herschel Herbert, Los Angeles, University of Southern California School of Medicine.
Carlson, Elmer Otto, San Diego, University of Southern California School of Medicine.
Chapman, Ralph, Los Angeles, University of Illinois College of Medicine.
Clark, Ralph Otis, Santa Barbara, University of Oklahoma School of Medicine.
Colloff, Ben, San Francisco, Rush Medical College, Illinois.
Comparette, Homer Louis, Los Angeles, University of Southern California School of Medicine.
Comroe, Jules Belasco, Los Angeles, University of Chicago Division of Biological Sciences, Illinois.
Comroe, Leon Belasco, Los Angeles, University of Chicago Division of Biological Sciences, Illinois.
Conrad, William Frederick, Los Angeles, College of Medical Evangelists.
Cooper, Zaullie Philip, Los Angeles, University of California Medical School.
Cummings, Clara Mae, Los Angeles, College of Medical Evangelists.
DeCola, Angelina Marguerite, San Jose, Woman's Medical College of Pennsylvania.
Dolfini, Walter William, San Francisco, McGill University Faculty of Medicine, Canada.
Einhorn, Benjamin, Los Angeles, University of Illinois College of Medicine.
Emmons, Lowell Luther, San Bernardino, University of Southern California School of Medicine.
Ermshar, Lloyd George, Los Angeles, College of Medical Evangelists.
Fein, George, Los Angeles, University of Michigan Medical School.
Foster, Luther Paul, Los Angeles, College of Medical Evangelists.
Fox, Robert Adolph, Los Angeles, Creighton University School of Medicine, Nebraska.
Galbraith, Harold Frederick, Venice, University of Southern California School of Medicine.

Gallup, Charles Amos, Los Angeles, University of Southern California School of Medicine.
Gandin, Morris Mordecai, Los Angeles, University of Southern California School of Medicine.
Garrett, Garland Fielding, Los Angeles, University of Southern California School of Medicine.
Garron, Levon K., Oakland, McGill University Faculty of Medicine, Canada.
Gassman, Frank Carl, San Francisco, Schlesische Friedrich Wilhelm University, Breslau, Germany.
Geirger, Anne Benners, San Diego, University of California Medical School.
Genitis, Valeria Erena, Los Angeles, Loyola University School of Medicine, Illinois.
Goodhill, Victor, Los Angeles, University of Southern California School of Medicine.
Goto, James M., Los Angeles, University of Southern California School of Medicine.
Greeley, Charles Eddy, Inglewood, University of Southern California School of Medicine.
Greeley, Paul Orson, Inglewood, University of Southern California School of Medicine.
Greenberg, Maurice Herzberger, Los Angeles, University of Chicago Division of the Biological Sciences.
Guinney, Francis Edwin, Los Angeles, University of Southern California School of Medicine.
Hadley, Russel Curtis, Los Angeles, University of Southern California School of Medicine.
Haft, Stanley Samuel, Los Angeles, Rush Medical College, Illinois.
Hahman, Paul Theodore, San Francisco, McGill University Faculty of Medicine, Canada.
Hanson, Paul Joseph, Los Angeles, University of Oklahoma School of Medicine.
Hart, Helen Bertha, Los Angeles, University of Rochester School of Medicine and Dentistry, New York.
Hendricks, Coleman Breese, Los Angeles, University of Southern California School of Medicine.
Hill, Raymond Merrill, Los Angeles, College of Medical Evangelists.
Hollander, Frederick George, San Diego, Loyola University School of Medicine, Illinois.
Jacobs, Nathan, Los Angeles, Rush Medical College, Illinois.
Jacobson, Leland Carl, Los Angeles, University of Southern California School of Medicine.
Jamentz, Albert Hartune, Los Angeles, University of Southern California School of Medicine.
Jones, Floyd Harriman, Long Beach, College of Medical Evangelists.
Kaplan, Louis, Los Angeles, Rush Medical College.
Knight, Frederick William, Miami, Arizona, College of Medical Evangelists.
Knouf, Evelynne Gwenneth, Los Angeles, University of Southern California School of Medicine.
Lasin, Harry, Los Angeles, University of Illinois College of Medicine.
Leary, John Hilgers, Los Angeles, College of Medical Evangelists.
Lee, Henry Yen, Los Angeles, College of Medical Evangelists.
Lefkin, Philip, Los Angeles, Rush Medical College, Illinois.
Leix, Frederick William S., Los Angeles, University of Southern California School of Medicine.
Levy, Charles Cyril, Los Angeles, Loyola University School of Medicine, Illinois.
Lighthill, Jack Abert, Los Angeles, University of Southern California School of Medicine.
Lilly, Lewis John, Los Angeles, College of Medical Evangelists.
Linne, Francis Byrnes, Los Angeles, University of Southern California School of Medicine.
London, Milton Zavodnick, Los Angeles, University of Southern California School of Medicine.
Long, James Clarke, San Marino, University of Southern California School of Medicine.
Marsden, Charles Summers, Jr., San Diego, University of Michigan Medical School.
Martin, John Needham, Los Angeles, College of Medical Evangelists.
May, Stanton Bonham, Los Angeles, College of Medical Evangelists.
McCoy, David Allen, Los Angeles, University of Southern California School of Medicine.
McDonald, John Bowen, Los Angeles, Georgetown University School of Medicine, District of Columbia.
McKenna, Stephen Eugene, Los Angeles, University of California Medical School.
Miller, Earl Roy, San Francisco, University of Wisconsin School of Medicine.
Milliken, Ralph Malcom, Los Angeles, University of Southern California School of Medicine.
Militzer, Marian Monica, Los Angeles, Loyola University School of Medicine.
Moore, Robert Lester, South Pasadena, University of Pennsylvania School of Medicine.
Nelson, Clyde Harold, Los Angeles, College of Medical Evangelists.
Nelson, Harold Olaf, Los Angeles, Rush Medical College.
Null, Robert Palmer, Pasadena, Stanford University School of Medicine.
O'Hara, John Gerald, Los Angeles, St. Louis University School of Medicine.
Olson, William Adolph, Los Angeles, College of Medical Evangelists.
Parrett, Virgil Owen, San Juan Capistrano, College of Medical Evangelists.
Petersen, Henry Charles, Sacramento, University of Southern California School of Medicine.
Reeves, Nile Irwin, Loma Linda, College of Medical Evangelists.
Riddell, Herman Irving, Louisville, Kentucky, University of Southern California School of Medicine.
Robson, Verna Lucille, Berrien Springs, Michigan, College of Medical Evangelists.
Root, Ralph Nathan, San Bernardino, University of Southern California School of Medicine.
Sarnat, Bernard George, Los Angeles, University of Chicago Division of Biological Sciences.
Sbarbaro, Victor Eugene, Weed, California, McGill University Faculty of Medicine, Canada.
Schultz, Edwin William, Palo Alto, Johns Hopkins University School of Medicine.
Scott, Clarence Deith, Bishop, University of Western Ontario Medical School, Canada.
Soroker, Stella Bella, Los Angeles, University of Southern California School of Medicine.
Stanton, Ernest Mabrey, Santa Monica, College of Medical Evangelists.
Steele, Warren Nelson, Jr., Los Angeles, University of Southern California School of Medicine.
Tarr, Lloyd Nathan, Sierra Madre, Stanford University School of Medicine.
Thompson, Roderick Alexander I., Los Angeles, University of Southern California School of Medicine.
Thornbury, James Harvey, San Francisco, Jefferson Medical College, Pennsylvania.
Tompkins, Harold Phillip, Santa Barbara, Washington University School of Medicine, Missouri.
Tully, Paul White, Los Angeles, University of Southern California School of Medicine.
Wadsworth, Elmer Eugene, Jr., Santa Barbara, University of Southern California School of Medicine.
Wang, Chi Chang, China, College of Medical Evangelists.
Ward, Henry Charles, Long Beach, Stanford University School of Medicine.
Wartenberg, Robert, San Francisco, University of Rostock Medical Faculty, Germany.
Watson, Blake Haverson, University of Manitoba Faculty of Medicine, Canada.
Wells, Ruth, Springville, California, Stanford University School of Medicine.
Wexler, Manuel R., Los Angeles, Rush Medical College, Illinois.
Wheeler, Norman Orion, Los Angeles, College of Medical Evangelists.
Witherbee, Orville Orvus, Jr., Los Angeles, University of Southern California School of Medicine.
Wolff, Erich, Los Angeles, Friedrich Wilhelm University, Berlin, Germany.
Wood, Clyde Othur, Los Angeles, University of Southern California School of Medicine.
Woodhull, Franklin Earl, Los Angeles, University of Southern California School of Medicine.
Ziprick, Harold Frederick, Los Angeles, College of Medical Evangelists.

Molds.—There is no clear-cut evidence to indicate that molds which commonly produce spoilage in food are pathogenic to man. Air and soil contain many mold spores which germinate and grow when they have suitable food, moisture, temperature, and time. Common refrigerators are not free from fungi.

Every stage of life calls for teaching. He who is beyond the need of it is already dead mentally. A trait of the person who achieves much is a strong interest in something, coupled with a disposition to respond to teaching, from whatever source it may come.

DR. WILLIAM F. SNOW: FORMER CALIFORNIA DIRECTOR OF PUBLIC HEALTH

A Testimonial Dinner

With a recent invitation to attend a dinner in honor of Dr. William Freeman Snow in the Empire Room of the Waldorf-Astoria, New York City, on Friday evening, October 1, 1937, came a transmittal leaflet containing comment on the public health services rendered by Dr. William F. Snow, Director of the American Social Hygiene Association, and one time director of the California State Board of Public Health. The esteem in which Doctor Snow is held in the East should be of special interest to his former classmates of Stanford and to members of the medical profession of California who had the privilege of working with him when he was the State Health Officer.

* * *

Forty years ago this autumn an energetic, studious and purposeful young man entered the Cooper Medical College, which was later to become Stanford University's School of Medicine. While still a student, William Freeman Snow made his first permanent contribution to public health education by organizing the Student Guild, which continues to this day to be a source of substantial health benefit to Stanford students.

After graduation Doctor Snow soon became a leader in hygiene and public health education. He was a member of the Stanford faculty from 1900 to 1919. He served the California State Board of Health as epidemiologist, and in 1909 became the executive officer of the Board. During the next five years California took high rank among the efficient state health departments of the country. Doctor Snow's pioneer efforts in progressive health activities were watched with interest throughout the United States.

Trained as an ophthalmologist and conditioned in the liberal social attitude of Stanford University, Doctor Snow early turned his attention to the much neglected health problems of syphilis and gonorrhea. As the young and vigorous health officer of California he attracted the attention of such men as President Emeritus Charles W. Eliot of Harvard and Dr. Prince Morrow of New York, the leaders of pioneer American organizations attempting to promote what was then called sex hygiene. At the same time President David Starr Jordan of Stanford was heading the popular movement against commercialized prostitution. It was these three great leaders who saw the necessity for a voluntary agency with the broadest possible approach to the problems of social hygiene and who, therefore, in 1913 merged several existing societies to form the American Social Hygiene Association and persuaded Doctor Snow to come East and pilot it.

Doctor Snow encouraged the interest in and support for his new organization of philanthropists such as John D. Rockefeller, Jr., Julius Rosenwald, Cleveland Dodge, and many others. His success made such an impression on the leaders in public health work that he was marked for immediate draft when this country entered the war in 1917. He pointed out that America must facce the menace of syphilis and gonorrhea to the fighting efficiency of millions of young men to be inducted into the armed forces.

At the beginning of the war and during his service as a medical officer under Surgeon-General Gorgas, Colonel Snow was largely instrumental in showing the need for a national social hygiene program and obtaining support for it from the Congress and the Secretaries of War and Navy, as well as the National Council for Defense and its semi-official advisory bodies, the General Medical Board, and the National Red Cross. This program for the first time was founded on the conception that the venereal diseases are not necessary concomitants of military or naval life. As a result a program was adopted which included chemical prophylaxis, the reduction of the opportunities for infection by the repression of prostitution in the environs of military posts, the education of the military and civil population, and the plentiful provision of wholesome recreation facilities. So successful was this program that the American armies set up an all time world record for low incidence of venereal diseases, and an impressed Congress passed the Chamberlain-Kahn Act, which set up the Interdepartmental Social Hygiene Board and the Bureau of Venereal Diseases in the United States Public Health Service, and appropriated money to bring the whole social hygiene program to the general population. Forty-one states participated, local clinical facilities increased more than tenfold and environmental protective measures in many states were greatly stimulated before federal funds were exhausted. The work of venereal disease control in the United States Public Health Service has survived as one of the permanent gains for social hygiene of the greatest importance and usefulness.

All during this war period Doctor Snow, with the backing and support of the American Social Hygiene Association, had his finger in every health pie. Social hygiene suddenly and, it seemed, miraculously, appeared in the programs of numerous key organizations and nearly always Doctor Snow could be dimly discerned in the background. The amount of labor he performed was colossal. He seemed to be driven by some high compression engine denied to other men. In fact his nickname was "The Driven Snow."

In a recent address at the Hotel Pennsylvania, Professor Winslow of Yale said: "In this whole first phase of practical disease control in the United States, William F. Snow was the stage manager, even though he rarely occupied the limelight in his own person."

It was only natural that in the international scene also Doctor Snow should be asked to help in the direction and casting of the men and women who were struggling with the age-old problems of prostitution and the international traffic in women and children, as well as the world-wide ravages of syphilis and gonorrhea. The Committee of Experts, of which he was chairman from 1924 to 1929, alone among all those under the jurisdiction of the Council of the League of Nations, came to a unanimous agreement on a constructive program for procedures against the so-called white slave traffic. Unique in unanimity, the result was a tribute to the leadership of Doctor Snow as well as to his indefatigable pursuit of his objective. He has participated actively, as an officer, in many international health and welfare organizations. With several other authorities he went to Puerto Rico where, under Governor Theodore Roosevelt, Jr., they investigated the conditions which were injurious to the health of the children of the Island.

Among the other great contributions of Doctor Snow to public health, not only as an educator but as an administrator, have been his lifetime interest in the Conference of State and Provincial Health Authorities of North America, of which he was formerly president, and the organization of the National Health Council. Doctor Snow urged the national voluntary health agencies to merge in the interest of more efficient public service. While not wholly successful in persuading these bodies to carry this coördination to completion, Doctor Snow did bring about the formation of the National Health Council of fourteen agencies housed in close proximity, mostly under one roof and using many common services. As president of the Council for many years, his judgment and vision entered largely into the development of the constituent groups even in fields quite remote from social hygiene. He was at one time a member of the boards of directors of sixteen national health and educational organizations. Charles W. Eliot once wrote, "I believe Doctor Snow to be *the* most effective man in the field of public health—not 'one of the most effective men.'"

He was and remains the inspiration and adviser of organizations, too numerous to mention, devoting important attention to sex education, the control of syphilis and gonococcal infections, and repression and prevention of commercialized prostitution. State and city health authorities, religious, educational and social organizations, medical societies and schools, leaders and workers in every category of agency have turned to him as the great leader, teacher and administrator in social hygiene. Doctor Snow has miraculously found time, encouragement, and wisdom for all of them, never seeking recognition or reward.

Among the younger men who watched Colonel Snow in his work during the war was one who, after a long apprenticeship in the Public Health Service, was to be called to the spotlight by Franklin D. Roosevelt. Dr. Thomas Parran was made Commissioner of Health for New York State by Governor Roosevelt and later Surgeon-General of the United States Public Health Service by President Roosevelt. Immediately after his appointment as Surgeon-General, correctly sensing that the public mind had been prepared by education for a dramatic move, Doctor Parran

sounded a tocsin of war against syphilis. Declaring that the major objective of his administration would be the control of syphilis, he awoke the nation to its responsibilities. In the press and on the platform, from radio and screen came the most amazing publicity break of the century. Everywhere people were eager to be implemented and to act.

Thus the long labors under Doctor Snow's guidance suddenly came to fruition throughout the United States. The skill with which the stage had been set during a quarter of a century was almost overlooked in the dramatic appearance of a new and brilliant leader challenging the nation to conquer syphilis. But Doctor Parran was prompt in his recognition of the nation's debt to Doctor Snow and his followers, warning the public that official agencies could not do the job alone, that the work of the American Social Hygiene Association was needed now more than ever so that real progress might be made.

Not to allow this fervor to die before the gains could be consolidated became the problem of Doctor Snow and the American Social Hygiene Association. He had often proposed a National Social Hygiene Day to be devoted to discussion and education in communities all over the country. Viewed skeptically by many when it was actually undertaken, the success of this project was breath-taking. In more than five hundred communities, large and small, people came together on or about February 3, 1937, and considered what they could do locally and nationally to aid in the conquest of syphilis, the promotion of sex education, and the prevention of commercialized prostitution.

Just as during the World War Doctor Snow was called and enlisted "for the duration," so now he has been called by Surgeon-General Parran to aid and advise the Federal Government in its campaign against syphilis. In the capacity of consultant and field marshal pro tem, William F. Snow is the perfect liaison officer between the health officials and the voluntary social agencies and citizen organizations who are fighting shoulder to shoulder in a great campaign that will never end until syphilis has been conquered.

By a man's work you shall know him. Countless thousands in America and abroad are happier and healthier because of Doctor Snow's work. Those who know him personally admire him as a man aside from his rich contribution to human welfare. A brilliant social strategist, an inspiring teacher, a wise adviser, a skilled administrator and organizer, an indefatigable worker, he is also a kind and sympathetic friend, a loyal comrade, modest in success, cheerful in adversity, tactful, gentle, humorous, unselfish, courageous, a truly great man whom it is a privilege to follow and a pleasure to honor.

CALIFORNIA INFANT MORTALITY RATES RISE

Infant mortality rates in California for 1936 are slightly higher than for 1935. Increases among races other than white are conspicuous, with the single exception of negroes. While an appraisal of infant welfare should cover a period of years in order to make a fair and just evaluation, there is a significance in the trend of such rates during a single year. An opportunity is provided, at least, to profit by a study of the conditions in each community and to apply those attributes that are known to contribute to the saving of infant lives. The following tables provide data upon infant mortality in California cities and counties in 1935 and 1936:

Infant Mortality

County-City	1936 No.	1936 Rate	1935 No.	1935 Rate
Alameda County (exclusive of)	14	53.0	14	50.4
Oakland	186	44.2	171	41.7
Alameda	7	23.0	2	7.3
Berkeley	31	40.2	23	31.8
San Leandro	4	53.3	4	44.9
Albany	8	34.5	11	51.6
Hayward	4	48.2	5	52.1
Piedmont	....	.....	....	.....
Alpine	....	.....	....	.....
Amador	1	15.1	2	26.0
Butte County (exclusive of)	25	68.1	19	54.6
Chico	9	37.2	13	50.4
Calaveras	2	33.3	....	.....
Colusa	9	55.2	10	61.0
Contra Costa (exclusive of)	8	27.5	16	48.0
Richmond	14	49.3	14	52.2
Martinez	12	42.8	17	62.0
Pittsburg	8	94.1	5	36.8
Del Norte	3	56.6	2	27.4
Eldorado	5	33.1	3	28.3
Fresno County (exclusive of)	164	87.3	98	54.2
Fresno	25	36.1	32	46.6
Glenn	5	37.9	8	52.6
Humboldt County (exclusive of)	11	39.1	13	50.6
Eureka	25	61.4	18	47.6
Imperial County (exclusive of)	93	150.5	65	103.8
Brawley	42	118.3	59	150.9
Calexico	10	68.0	12	72.7
El Centro	15	72.5	6	35.9
Inyo	5	56.8	7	106.1
Kern County (exclusive of)	140	108.2	109	101.1
Bakersfield	30	44.6	31	54.7
Kings County (exclusive of)	45	135.1	26	89.6
Hanford	18	73.8	20	86.9
Lake	5	59.5	2	24.4
Lassen	21	84.3	13	56.3
Los Angeles County (exclusive of)	162	33.8	147	31.4
Los Angeles	986	56.2	880	52.1
Alhambra	2	7.4	7	31.5
Long Beach	86	34.7	83	38.0
Pasadena	39	50.6	12	17.6
Pomona	22	54.9	16	49.4
Santa Monica	23	27.5	22	28.6
Glendale	27	25.0	23	23.3
Monrovia	5	64.9	2	23.8
Redondo Beach	2	64.0	3	54.5
Whittier	5	15.1	18	60.0
South Pasadena	2	111.1	7	125.0
Arcadia	....	.....	1	71.4
Bell	13	21.5	9	19.9
Beverly Hills	....	.....	2	333.3
Burbank	4	19.4	7	40.0
Compton	9	34.7	9	41.9
Culver City	3	19.3	3	25.0
Hawthorne	2	14.5	7	51.1
Huntington Park	9	26.7	15	44.9
Inglewood	8	19.3	10	23.9
Lynwood	1	90.9	2	90.9
Maywood	3	21.6	1	14.3
Montebello	....	.....	3	142.8
Monterey Park	7	31.5	6	33.7
San Fernando	7	50.3	10	83.3
San Gabriel	6	125.0	1	23.8
South Gate	12	28.0	10	26.8
Torrance	12	46.0	2	8.2
Madera	41	127.3	29	105.4
Marin County (exclusive of)	3	21.7	1	7.6
San Rafael	5	30.1	6	41.9
Mariposa	4	125.0	2	60.6
Mendocino	28	85.4	11	35.2
Merced County (exclusive of)	41	84.7	34	69.8
Merced	9	43.7	7	36.8
Modoc	14	157.3	8	88.9
Mono	3	333.3	1	142.8
Monterey County (exclusive of)	42	65.6	35	61.8
Monterey	3	35.7	6	66.7
Pacific Grove	4	66.7	3	56.6
Salinas	7	46.0	7	35.3
Napa County (exclusive of)	5	39.4	4	34.2
Napa	5	31.2	4	32.8
Nevada	11	44.7	19	84.4
Orange County (exclusive of)	56	68.8	71	88.4
Santa Ana	17	40.6	28	66.5
Anaheim	13	101.6	5	39.4
Fullerton	10	50.0	4	23.4
Orange	16	39.8	17	47.1
Placer County (exclusive of)	11	51.9	12	59.7
Roseville	4	90.9	2	37.0
Plumas	4	30.8	2	21.5
Riverside County (exclusive of)	72	102.4	59	86.1
Riverside	57	72.0	33	42.8
Corona	13	85.0	7	42.7
Sacramento County (exclusive of)	9	65.3	9	42.6
Sacramento	120	59.4	101	52.2
San Benito	10	71.4	14	107.7
San Bernardino Co. (exclusive of)	69	72.5	43	47.2
Redlands	11	41.0	11	46.6
San Bernardino	102	90.7	69	69.9
Ontario	9	62.5	9	58.1
Colton	8	63.0	10	61.3
San Diego County (exclusive of)	19	43.1	18	44.7
San Diego	139	44.2	111	38.7
Coronado	1	17.8	2	37.7
National City	9	36.0	11	49.5
San Francisco	303	41.6	251	35.2
San Joaquin County (exclusive of)	52	61.7	67	81.6
Stockton	25	38.9	34	55.3
Lodi	7	43.2	4	27.8
San Luis Obispo Co. (exclusive of)	4	19.4	10	51.8
San Luis Obispo	13	50.2	19	78.2
San Mateo County (exclusive of)	6	120.0	2	41.7
San Mateo	21	52.5	13	32.9
Burlingame	....	.....	1	333.0
Daly City	2	333.3	....	.....
Redwood City	1	18.9	1	24.4
South San Francisco	....	.....	1	17.5
Santa Barbara Co. (exclusive of)	25	71.4	16	45.4
Santa Barbara	21	43.8	22	46.5
Santa Maria	22	76.4	21	73.9

County-City	1936 No.	1936 Rate	1935 No.	1935 Rate
Santa Clara County (exclusive of)	71	55.0	91	70.9
San Jose	17	30.4	15	29.0
Palo Alto	6	23.7	7	27.2
Santa Clara	....	.....	1	47.6
Santa Cruz County (exclusive of)..	7	54.3	5	37.0
Santa Cruz	8	41.9	6	35.7
Watsonville	13	57.5	16	72.4
Shasta	14	49.6	14	55.1
Sierra	1	38.5	2	57.1
Siskiyou	23	62.2	18	52.8
Solano County (exclusive of)	8	42.8	10	52.3
Vallejo	9	35.6	11	49.5
Sonoma County (exclusive of)	14	37.8	19	55.9
Petaluma	3	19.6	3	20.8
Santa Rosa	8	36.2	7	35.2
Stanislaus County (exclusive of)	20	40.5	20	40.1
Modesto	25	39.9	31	55.6
Sutter	9	33.0	18	65.0
Tehama	9	42.2	7	31.2
Trinity	3	75.0	2	43.5
Tulare County (exclusive of)	82	67.8	83	74.0
Visalia	5	25.1	8	42.5
Porterville	9	65.7	10	68.5
Tulare	13	112.1	10	91.7
Tuolumne	5	44.2	8	75.5
Ventura County (exclusive of)	56	103.9	48	92.1
Oxnard	20	84.7	20	77.5
Santa Paula	5	34.7	5	39.1
San Buenaventura	9	43.5	3	19.5
Yolo County (exclusive of)	13	89.6	10	62.5
Woodland	10	60.3	3	20.3
Yuba County (exclusive of)	3	90.9	2	41.7
Marysville	13	73.4	11	84.6
Rates by Race				
Total	4,478	53.0	3,973	49.5
White	2,834	41.5	2,546	39.5
Negro	67	51.3	78	62.5
Indian	59	137.5	44	109.7
Chinese	36	67.0	22	42.5
Japanese	52	35.9	65	43.3
Mexican	1,379	113.4	1,184	100.7
Other	51	141.8	34	115.2
Infant Mortality by Counties				
CALIFORNIA	4,478	53.0	3,973	49.5
Alameda	254	42.8	230	39.8
Alpine	....	.....	....	.....
Amador	1	15.1	2	26.0
Butte	34	55.8	32	52.8
Calaveras	2	33.3	....	.....
Colusa	9	55.2	10	61.0
Contra Costa	42	44.7	52	51.4
Del Norte	3	56.6	2	27.4
El Dorado	5	33.1	3	28.3
Fresno	189	73.5	130	52.1
Glenn	5	37.9	8	52.6
Humboldt	36	52.3	31	48.8
Imperial	160	120.6	142	105.3
Inyo	5	56.8	7	106.1
Kern	170	86.3	140	85.1
Kings	63	109.2	46	88.5
Lake	5	59.5	2	24.4
Lassen	21	84.3	13	56.3
Los Angeles	1,457	45.5	1,312	43.6
Madera	41	127.3	29	105.4
Marin	8	26.3	7	25.5
Mariposa	4	125.0	2	60.6
Mendocino	28	85.4	11	35.2
Merced	50	72.5	41	60.6
Modoc	14	157.3	8	88.9
Mono	3	333.3	1	142.8
Monterey	56	59.8	51	56.2
Napa	10	34.8	8	33.5
Nevada	11	44.7	19	84.4
Orange	112	57.0	125	66.4
Placer	15	58.6	14	54.9
Plumas	4	30.8	2	21.5
Riverside	142	86.2	99	61.1
Sacramento	129	58.1	110	51.2
San Benito	10	71.4	14	107.7
San Bernardino	199	76.1	142	57.9
San Diego	168	43.2	142	40.0
San Francisco	303	41.6	251	35.2
San Joaquin	84	51.0	105	66.4
San Luis Obispo	17	36.5	29	66.5
San Mateo	30	53.3	18	32.3
Santa Barbara	68	60.9	59	53.2
Santa Clara	94	44.5	114	56.2
Santa Cruz	28	51.3	27	51.5
Shasta	14	49.6	14	55.1
Sierra	1	38.5	2	57.1
Siskiyou	23	62.2	18	52.8
Solano	17	38.6	21	50.8
Sonoma	25	33.6	29	42.4
Stanislaus	45	40.2	51	48.3
Sutter	9	33.0	18	65.0
Tehama	9	42.2	7	31.2
Trinity	3	75.0	2	43.5
Tulare	109	65.6	111	71.0
Tuolumne	5	44.2	8	75.5
Ventura	90	79.9	76	71.6
Yolo	23	73.9	13	42.2
Yuba	16	76.2	13	73.0

PUBLIC HEALTH ADMINISTRATION IN COUNTIES AND CITIES OF CALIFORNIA

The California State Department of Public Health regards the county as the logical local unit in public health administration. To be sure, the large city is a suitable unit for administrative purposes in a metropolitan area, but the county, because of its governmental status, must be regarded as the proper unit for general public health administration.

The Political Code makes provision for the appointment in each county by the board of supervisors of a health officer who shall be a graduate of a medical college of good standing and repute. He is charged with the enforcement and observance of all orders and ordinances of the board of supervisors pertaining to health and sanitary matters, all orders, quarantine regulations and rules prescribed by the State Board of Health, all statutes relating to the public health and to vital statistics.

The Political Code also makes provision for the appointment by city board of trustees, city council, or other municipal legislative body of a city health officer whose duty it is to enforce and observe all local ordinances pertaining to health and sanitary matters, all orders, quarantine regulations and rules prescribed by the State Board of Health and all statutes relating to the public health and to vital statistics. City and county health officers are required to report to the State Board of Health the sanitary condition of the locality, the number of deaths with the cause of each and the presence of epidemics or other dangerous, contagious or infectious diseases and such other matters within their knowledge or jurisdiction as the State Board may require.

A statute enacted in 1917 provides for the establishment of local health districts which may cover incorporated or unincorporated territory or both, containing one or more counties. Such district is supported through a tax levy. Only one county of California has so far made use of the organization provided in this statute.

During the past twenty years great impetus has been given to the organization of full-time county health units. The State Board of Public Health has been active in stimulating the organization of such units. At the present time there are twenty-one full-time county health units operating in California including San Francisco, which is organized as a city and county and has no area which may be considered as rural. The following are the rural county health units operating upon a full-time basis together with the year in which such units were established:

Los Angeles	1915
Orange	1922
Monterey	1923
San Joaquin	1923
San Luis Obispo	1923
San Diego	1924
Santa Barbara	1925
Riverside	1926
Contra Costa	1928
Madera	1928
Stanislaus	1929
Imperial	1930
San Bernardino	1931
Kern	1931
Alameda	1933
San Mateo	1933
Fresno	1935
Ventura	1937
*Yolo	1937
Santa Cruz	1937

* A full-time unit was first established in Yolo County in 1927, but it reverted to a part-time basis after operating three or four years, only to be reëstablished in 1937.

Of these, nine counties—Contra Costa, Madera, Monterey, Orange, San Luis Obispo, Santa Barbara, Stanislaus, San Bernardino, and Yolo—received subsidies from the State through the State Board of Public Health, the International Health Board, or the United States Public Health Service during the early periods of their existence. It was customary for the State to provide public health nursing service and for the International Health Board or the Public Health Service to pay portions of the health officer's salary. After three years of such subventions assistance was withdrawn, it being assumed that at the end of that time the demonstration had been completed and that the county would be able to carry on the activities without further assistance. The wisdom of this course is revealed

in the fact that full-time units continued in all of these counties with the exception of Yolo, which has been on a part-time basis for several years but is once more operating with full-time facilities.

CALIFORNIA CITIES HAVING FULL-TIME PUBLIC HEALTH SERVICE

At present the following cities of California have health departments, not included with county units, whose staff members are employed full time:

City	Population 1930 Census
Los Angeles	1,254,179
Long Beach	144,140
Oakland	285,717
Pasadena	76,836
San Jose	58,090
Palo Alto	13,841
Sacramento	94,429
San Francisco	637,509
Berkeley	82,745
Santa Barbara	33,959
Total	2,681,445

NEW CALIFORNIA PUBLIC HEALTH LAWS

The chapter titles and numbers in the California Codes, for public health laws passed at the last session of the Legislature, and which became operative on August 27, 1937, are as follows:

Chapter 787. Venereal Disease Control

This Act establishes a Bureau of Venereal Diseases in the State Department of Public Health. It requires the State Board of Public Health to make rules and regulations for the prevention and control of venereal diseases, and charges the Board with the enforcement of such rules and regulations, particularly those relating to the quarantine of persons suspected of having, or those who may have venereal disease. The Act enables the State Department of Public Health to establish, maintain and subsidize clinics, dispensaries and prophylactic stations for the diagnosis, treatment, and prevention of venereal diseases. Under its provisions the Department may furnish treatment for cases in rural districts where adequate facilities for such treatment are not available. Local health officers are required to exert every effort to learn of the existence of cases of infectious venereal diseases, to investigate all cases that are not subject to proper control measures, to ascertain so far as possible all sources of infection and to take reasonably necessary measures to prevent the transmission of infection.

Diseased persons are required to comply with all State rules and regulations and to give all information required by the Act, and must submit to approved examination to determine the condition of the disease in the individual patient. Patients who discontinue control measures required by the Act and who fail to comply with the requirements for treatment must be reported by the individual or organization providing such treatment. Violations of the Act constitute misdemeanors. It is specified that nothing in the Act shall be construed to interfere with the freedom of any adherent of a religious sect which depends upon prayer for healing, except that the rules and regulations pertaining to reporting and quarantine must be observed.

Chapter 804. Clinical Laboratories

This Act repeals Chapter 638, Statutes of 1935, and provides that after January 1, 1938, each clinical laboratory must be under the immediate supervision and direction of a licensed clinical laboratory technologist, or by the holder of an unrevoked physician's and surgeon's certificate. Every technologist making tests in bacteriology, biochemistry, serology and parasitology, must hold a certificate as a qualified technician in the subject or subjects concerned with the test, as issued by the State Board of Public Health. Definitions are established for clinical laboratory technologists and clinical laboratory technicians. It provides further that after January 1, 1938, all clinical laboratory technologists or technicians must have certificates issued by the State Board of Public Health. Clinical laboratories operated by nonprofit hospitals, by the State or Federal Government, are exempt from the provisions of the Act. Provision is made for the collection of fees from applicants for certificates, which are paid into a fund to be known as the clinical laboratory fund. The State Board of Public Health is charged with making regulations for the conduct of the clinical laboratories and their enforcement.

Chapter 49. State Board of Public Health

This Act provides for the appointment of an eighth member of the State Board of Public Health, who should be a duly licensed and practicing dentist of this State.

Chapter 530. Sanitation of Trailer Coaches

This Act defines a trailer coach, trailer camp and camp site. It provides, further, for the issuance of permits to applicants who desire to operate or construct trailer camps. Such permits are issued by the Division of Immigration and Housing of the Department of Industrial Relations. Specific requirements are made to cover the following: caretaker, grading and drainage, cleanliness, water supply, sewage disposal, garbage and rubbish disposal, and other matters pertaining to general sanitation. The law provides, further, that no trailer coach shall park overnight within twenty feet of the traveled portions of a public highway. This section of the Act shall be enforced by the California Highway Patrol. The provisions of the Act do not apply to any supervised public park or camp ground owned or operated by the Federal Government, the State of California or any of its agencies, or by any political subdivision or municipality.

Chapter 882. Nonprofit Hospital

This Act adds sections to the Insurance Code, pertaining to nonprofit hospital service. In addition to certain requirements by the State Commissioner of Insurance, it is established that no nonprofit hospital service plan shall be operated by any corporation subject to the provisions of the Act, without first having obtained a certificate of approval from the State Department of Public Health. No such certificate can be issued until the applicant has established that the hospitals wherein subscribers to the service are to be hospitalized shall possess adequate physical facilities, mechanical equipment and personnel for care of patients. The department is authorized to make inspections of such hospital premises and receive payment of registration fees not to exceed twenty-five cents per bed, based upon the daily average number of beds, but in no event less than $15 per hospital. The department is authorized to hold hearings in order to determine whether or not required hospital standards of service are maintained. Provision is also made for revoking certificates of approval for just cause. The State Commissioner of Insurance shall not issue his certificate of authority to establish or operate a nonprofit hospital service plan until certificates of approval have been issued by the State Department of Public Health.

Chapter 359. Food Sanitation

Under this Act, three new sections are added to the Food Sanitation Act of 1909. The first makes it unlawful to sell at retail jams, jellies, preserves, marmalades, peanut butter, horseradish, mayonnaise or salad dressings other than in closed containers approved by the State Board of Public Health. When any other disposition of such foods is conducive to contamination by flies, insects, dust, and dirt, except when sold in bulk for manufacturing products.

The second section makes illegal the use or sale of second-hand bottles, glass or crockery food containers used in the manufacture, production, or packing for sale of a food, drug, or liquor except by firms licensed by the California State Board of Public Health to sell such bottles. The Board shall require evidence that the applicant is properly equipped to sterilize such containers. It is specified that such container shall be cleaned and sterilized by soaking in a hot, caustic solution of not less than 120 degrees Fahrenheit, for a period of not less than five minutes and then thoroughly rinsed in pure water.

The third new section prohibits the use of food containers manufactured from second-hand tin plate, to be used for packing of hermetically sealed canned food products for human consumption, unless such plate has been cleansed and sterilized by being thoroughly immersed in the boiling water and then dried on hot rolls or by the use of heated air.

Chapter 609. Physical Examination of School Pupils

A new article is added to the School Code, by which the county superintendent of schools is authorized to employ nurses to supervise the health of pupils in the schools of

elementary districts not employing a nurse as a physical inspector. Such nurses must possess the required credentials and shall perform such duties as are prescribed by the county superintendent of schools. They shall not examine any pupil without the written consent of the parent or guardian.

Chapter 190. Tests for Hearing and Sight

A new section is added to the School Code which enables school districts to provide for the testing of sight and hearing of each pupil enrolled in the schools of the district. Such tests shall be given only by duly qualified physical inspectors or by contract with a duly authorized agency. Necessary equipment may be purchased or rented. The State Board of Education, under the provisions of this Act, may establish in one or more of the State colleges courses for giving adequate instruction in methods of testing sight and hearing of the public school pupils.

Chapter 866. Tomatoes

Section 4 of the Pure Foods Act is amended so as to permit the artificial coloring of tomatoes for shipment outside of the State.

Chapter 709. Egg Standardization

The Agricultural Code is amended so as to give the State Department of Public Health jurisdiction to enforce the specified legal standards for eggs.

Chapter 777. Egg Products

This Act amends the Agricultural Code so as to require all importers and wholesale distributors of egg products imported into California from without the United States to furnish the State Department of Public Health, within five days after receipt of egg products, a statement showing quantity and kind of egg products received, type of container and place where stored, and within five days after any sale to furnish a statement showing to whom such egg products are sold.

Another section requires public warehouses to keep a record and furnish to the State Department of Public Health at the end of each month a statement of all foreign imported egg products received during the month. The Act specifies, also, that egg products packed in drums or tin containers shall be sold only in new containers. It provides, also, that food products in the manufacture of which egg products are used which violate the provisions of the Act are public nuisances and shall be moved from place to place only under the direction of a proper enforcing officer.

LOOKING AHEAD IN PREVENTIVE MEDICINE*

I bring you today a prediction of the future of medicine. The prediction comes from nine of the wise men of medicine. The prediction comes at a good time, just one year short of your one hundredth anniversary, for most of the advances on which the forecast rests were made during that one hundred years, and you were part of some of them.

The first man was Dr. Simon Flexner of the Rockefeller Institute for Medical Research. He said:

"I never give interviews."

He did not break this rule. That is, he gave me no words of his own. But he led me to the library and there marked publications for me to read. Some were medical. Others dealt with scientific discoveries which have stirred the imagination of the world.

One was the quantum theory, which takes account of the things which are not directly observable. Others were relativity, the mysterious expanding nature of the universe, and the new ideas of geological time which make the age of the earth three billion years.

There were also the discovery of isotopes, that is, the variability of atoms. As a result of that discovery the ninety-two chemical elements of the earth, which have been the basis of all the medicines of the past, have been multiplied into 250 variations. Every one is potentially useful for medicine.

Some, like the hydrogen isotope, which makes heavy water, are already in use to enable medical men to trace invisible trails of the living processes in the human body.

There was artificial radio activity. This alone has already produced something like forty new kinds of radio activity. There were discoveries in low temperatures down almost to absolute zero. Although absolute zero means universal death of all energy, yet these discoveries have shown that this absolute death is probably impossible.

There was the astounding evidence of high temperature in the stratosphere, the rise of radio and the new air mass method of weather forecasting. There was all the new work in radiation. This included thermionic valves and the sensitive instruments with whose aid medical pioneers are beginning to identify the electrical action of the human brain.

There was man's ancestry as found by evolution. Here were new conceptions of the dignity of man's long past, and hints of the origins of human traits with which every medical man and every philosopher has to deal.

In the more strictly medical field was the discovery of vitamins, and the work on diet and deficiency diseases. There were the discoveries of bacteria, of bacteriophage and of the viruses. Already the virus discoveries have proved that in the presence of life, nonliving substances can organize themselves into units that have every attribute of independently living things. Some of these units have been identified as the cause of disease. They suggest the solution of problems which have completely baffled both science and medicine.

Other discoveries were the measurement of heat production by muscles and by nerves and the therapeutic application of x-rays and gamma-rays. There were genetics, nuclear structure, chromosomes, chemical catalysis and adsorption.

The last writing that Doctor Flexner designated explained all these that went before. It was an address by one of the great men of all time in medicine, the late Dr. William Henry Welch. Its title was "The Interdependence of Medicine and the other Sciences of Nature." It painted the picture of the medical man reaching out for aid to all the other sciences. It showed him traveling in cycles, sometimes to one field of science, sometimes to another, but always returning in the end to the advice of Hippocrates to assay the facts in his own clinical field.

Next I wrote to eight other men famous in medicine. I asked them to name the fields where the greatest medical interest and progress may be expected.

They named ten. Two ranked first with five votes each. Nutrition and chemistry. Many scientists believe that nutrition holds the most quickly applicable hope of longer life with full vigor almost to the end. Chemistry has given medicine hundreds of useful preparations, but chemists foresee hundreds of thousands of others which now do not even exist.

Second place was given to the endocrine glands, the internal secretions which directly regulate the human body and probably account for sanity itself. Third came immunology and psychology. In the fourth place were three sciences, physics, bacteriology and the very new science of group research. In the fifth place were allergy and physiology.

Sir Frederick G. Banting, discoverer of insulin, wrote: "I look forward to the greatest development being made in the application of physics and chemistry—particularly organic chemistry—to the problems of medicine."

Significant, he pointed out, is the fact that organic chemistry has supplied most of the contributions in recent years to nutrition, to endocrine glands and immunology. Even in physiological medicine, he said, the great advance of the future is likely to come from understanding the chemical processes in the activity of nerve cells.

The co-discoverer of insulin, Professor C. H. Best, likewise stressed organic chemistry. He predicted it would be applied to the gland products in medicine to a degree never before possible.

Doctor Best also emphasized physics and nutrition. He credited much of the interest in nutrition to the necessity of planning relief diets.

Old time medical pictures show the doctor measuring his medicine drop by drop. Today he measures the invisible, and the new method is called quantitation.

This method is seen as one of the important future steps of medicine by Dr. Frank Charles Mann of the Mayo Clinic.

* Excerpts from Commencement Address, Medical College of Virginia. June 1, 1937. By Howard W. Blakeslee, Associated Press Science Editor.

"The thing that has been so sadly needed in medicine," he wrote, "is methods of measurement. It is questionable if insulin would have been discovered if methods for measuring the glucose content of the blood had not been so much better in 1921 than they were in 1912."

The kind of measurement he predicted will permit the use of isotopes in studying metabolic processes.

Dr. E. C. Rosenow, of the Mayo Clinic, said that much new light is yet to come from a study of the bacteriology and immunology of various diseases. This may happen in diseases which at present are not even considered as possibly being due to infection.

The always conservative leader of the American Medical Association, Dr. Morris Fishbein, took the farthest look ahead. He said it is conceivable that the eventual and final phase of medicine will be psychologic.

"This, of course," he said, "will come when life expectancy at birth for the majority of people is seventy years."

At present, he said, the predominant phases of medicine are allergy, nutrition, and glandular research.

Two of the medical directors of the United States Public Health Service were consulted. They were Dr. J. P. Leake and Dr. G. W. McCoy. They stressed endocrine gland research, nutrition, physical chemistry, bacteriology, immunology, metabolic physiology and psychology.

Something that would not have been believable ten years ago is now rising above the new medical horizon. This is the similarity between the sex hormones, the coal tars which cause cancer, some vitamins and some of the human body's natural acids.

One pure human sex hormone has been found in date palm kernels and in willow flowers.

Dr. Francis Carter Wood of Columbia University, pointing to this new field, said:

"I think the future in general medicine points toward a great extension in chemistry of a type which has synthesized sex hormones, the carcinogenic substances and the vitamins. The interaction between these various substances and the organs of internal secretion make an astonishing picture which we are just beginning to unravel."

How far in the future is accomplishment of these medical predictions? A good index is prontosyl, the coal tar dye which seems so effective against the streptococcus. To the public prontosyl is a new medicine. It is a red dye invented in 1908. The chemical which kills the germs was added to the dye one year later. It was not put there to kill germs but to keep the color from fading.

After the dye proved useful as medicine it took years to discover that the effective part was this color preservative.

NEW DEAL PASSES FROM LAW AND ECONOMICS TO TAMPER WITH NATION'S HEALTH* †

Physicians throughout the United States will be interested to learn of the New Deal's latest experiment, which may prove the entering wedge for "socialized medicine" in America, sometimes called the placing of medical care on a "quantity production" basis.

Like all New Deal "experiments," the plan to provide medical care by the group method is limited in scope at first. It is to apply for the present to the employees here of the Home Owners Loan Corporation and the Federal Home Loan Bank Board, but it is so set up that it can just as readily be extended to all the 117,000 Federal employees here and the 700,000 or more Government employees throughout the country.

Doctors have long suspected that the New Deal would seek to introduce "socialized medicine," but assurances to the contrary have come, as usual, from time to time from high quarters. The importance of the new experiment will be minimized in official quarters so as to discourage opposition and the plan will be compared with various group health plans in private industry. But the new organization, nevertheless, is directly in line with what has been urged by persons inside the administration who see the job possibilities and patronage potentialities of a medical bureaucracy in the Government. The latest step, therefore, may be taken to mean that the campaign for "socialized medicine" has begun.

The objections to this form of medical care are numerous and the best testimony is that which comes from experts who have studied the health insurance systems abroad.

Thus, Sir E. Farquhar Buzzard, President of the British Medical Association, said recently in a public address:

"The chief flaw in a badly organized service, such as that which has evolved in this country during the last century, is lack of time, and both the general practitioner and the consultant, in order to earn a living wage, are frequently obliged to undertake far more work than they can deal with efficiently in the hours at their disposal."

Regarding Germany, Dr. Paul G. Frank, another authority, says: "For almost thirty years I have worked as a German panel doctor under the conditions of compulsory health insurance, and for many years I was a member of the physicians committee. During this period I witnessed a deterioration of the medical profession. It came about by the removal of the sanctions of preferment by skill and the substitution of preferment to convenience."

The same line of reasoning is expressed by Dr. William J. Mayo of the Mayo Brothers Clinic in Minnesota, who wrote recently:

"We of the medical profession are determined that we will not be subjected to political interference. We will not sacrifice the spiritual values of our profession for the small material gain held out to us by political and social experimenters who are attempting now to control the practice of medicine. We refuse to be dictated to by men who are not physicians, who do not understand the sacred obligation of physicians and their patients."

The way "socialized medicine" would develop would be to discourage younger men from going into the medical profession and take away from those who have built up a practice many of the patients who ordinarily come to them.

It is true a large number of doctors would have to be employed by the Government in any national scheme of "socialized medicine," but the selection of these doctors by a political spoils system would only be a worse step than the application for Government jobs of doctors not good enough to build for themselves a firm reputation and adequate practice in their own communities. If, for instance, all Government employees in Washington were to be cared for medically under some sort of group plan run by the Government, why should any good doctors stay here? Why should any new ones come here from the best medical schools to replace those who are retiring? Immediately there would be a destruction of incentive and a breakdown in the quality of medical care available to the people of this whole community.

The new plan to be put into effect next month by "The Group Health Association" among the Home Loan Corporation employees calls for payments of $3.30 a month for men with families and $2.20 a month for single persons.

"The service," it is promised by one of the officials in charge, "will include medical and surgical examinations, including examination in special departments, such as eye examinations, laboratory tests and X-ray examinations. In each case, complete medical and surgical care will be given.

"Hospitalization is to be given in a semi-private room for a period of three weeks during a single illness, without additional charge."

The staff of the new clinic is to be headed by Dr. Henry R. Brown of the tuberculosis division of the Veterans Administration and it is planned to hire a staff of about six or seven physicians.

The charter of the new organization is not restricted to the employees of the Federal Home Loan Bank Board and Home Owners Loan Corporation who are to participate in the group health scheme, but, if successful, the project can be extended to all Government employees inside and outside of the national capital. The dues do not include cost of medicines, drugs and surgical appliances nor the expense of dental work, oxygen tanks, radium and deep x-ray treatments, blood transfusions or special nursing service. It is not planned to treat certain types of surgical or nervous disorder cases or to furnish treatment after the medical director recommends confinement in an institution in mental, tubercular, drug or alcohol addiction cases.

The whole experiment, however, beginning now on a small scale, dovetails with reports current last November

* Reprinted from David Lawrence's syndicated copyright column in the New York *Sun*, August 26, 1937.

† For editorial comment, see page 219.

that the Social Security Board was studying the possibility of adding a national health insurance project as a part of its program. Comprehensive health insurance, of course, would be borne by the taxpayers and it is estimated as likely to cost 5 per cent of pay rolls. The Social Security Board has authority to make research studies on "related subjects" and health insurance is held to be one of these.

ROCKEFELLER AND THE PUBLIC HEALTH

Many public health workers of California have been given scholarships from the Rockefeller bounty and through the educational advantages made available by this source the health of Californians, in general, has been enhanced greatly. It would seem most fitting, therefore, to reproduce the following appreciation of John D. Rockefeller, which appeared in the London *Lancet* of May 29, 1937:

"With the death of John D. Rockefeller at the great age of nearly ninety-eight years an almost legendary figure has stepped quietly, almost imperceptibly, from the present into the past. The day will come when his life and endeavor will be written at full length, for almost alone among the world's rich men he has found a lasting place in the human imagination. There was something heroic in his mould, something dramatic in the denouement of his life which made him the very sign and epitome of his times and the last and almost tragic representative man of an age of individualism which has perhaps passed forever. The plot of his life is briefly told. Unbounded and self-sufficing ambition, machine-like industry and efficiency, riches amassed unemotionally and perhaps ruthlessly until they surpassed the count of man. In the plenitude of power and wealth came the conviction born of a deep puritanism that what had been wrenched without mercy from the world must be returned to it with interest; the machinery of his great wealth was put in reverse and the redistribution was carried out with the same genius and unrelenting thorougness which went to its amassing.

"To medicine John D. Rockefeller has been the greatest monetary benefactor of all time, not only as measured by the vast sums he expended, but also by the skill and forethought with which the money was invested. He was fortunate in his choice of medical advisers, or perhaps it would be fairer to say he was incomparably skillful in choosing them. As his great wealth had been acquired with a vision which went far beyond the limits of his own country, so it was spent without consideration for national boundaries. In this country alone the Rockefeller benefactions have been of unexampled magnitude and, as we look back on them, we are glad to think that it would be hard to suggest how they could have been made to better advantage. Thus the schools of London, Oxford, Cambridge, Edinburgh, and Bristol were given princely sums for important and overdue schemes of expansion. In London outstanding gifts were those to University College and its hospital, to the London School of Hygiene and Tropical Medicine, and toward the building of the new university premises in Bloomsbury. Many other universities and medical schools throughout both the British Empire and the world have likewise benefited according to their needs and deserts. In the United States itself there can be few medical schools or research institutions which are not indebted to the Foundation which for some ten years or so after the war seemed never to fail to meet every really deserving demand. The central monument of the Foundation is, of course, the Rockefeller Institute in New York. In this institute medical research, in its widest sense, was given a home and endowment on a scale parallcled by no other medical research institution in existence. The finest medical brains in the world were there attracted by the facilities for research. In this institute were conducted the work of Flexner on meningitis, of Cecil, Dochez, and Avery on pneumonia, the brilliant researches of Peyton Rous on transmissible tumors, Noguchi's spectacular, if sometimes misleading, investigations on syphilis, yellow fever, and bartonella infection. Here, too, Karl Landsteiner built up the great school of immunological chemistry the fruit of which is only beginning to be fully borne; while even wider in interest and passing far beyond the confines of medicine was the work of Armand Carrel on tissue culture, and of Jacques Locb on the dynamics of living matter. Not the least inspired of the views of the Rockefeller Foundation was the realization that there are no real boundaries to scientific knowledge and that the problem of medical education and research is not so much one of medical education as such, but of education in general. Thus, as the Foundation grew in experience and wisdom it became less purely medical in its activities, and in England we profited by this outlook in the benefactions to libraries and to such institutions as the London School of Economics. Relatively few of the great sums distributed by the Foundation took the form of permanent endowments. It was considered sufficient to plant the sapling and leave it to others to make the salutary effort by tending it and bringing it to fruition; but the Foundation never went by hard-and-fast rules, and where endowment was necessary and advisable it was arranged in the most elastic way possible. No institution and no individual who benefited from the Foundation ever felt the dead hand of formal charity. It is this tact and true understanding of the very spirit of learning and research which has earned the gratitude of the medical profession and which has been a model to countless benefactors who have followed the example of the great American philanthropist. To the medical profession J. D. Rockefeller will always be something more than the weazened and eccentric old gentleman who gave new dimes to passing children—something more, too, than the richest man in the world, whose name became as proverbial as Croesus. For the medical world, perhaps alone, is in the position to realize the grandeur of the drama of restitution which was played out in his life. In the midst of the murkiness and cruelty of the arena of nineteenth century commercialism, where he stood a peerless victor, he saw a vision and of that vision was born an ideal."

INFANTILE PARALYSIS—ZINC SULPHATE NASAL SPRAY

At Toronto, Ontario, on September 2, it was announced that five thousand Ontario children under fourteen were being treated this week, in a vast clinical test, with the Peet zinc sulphate nasal spray—the most hopeful preventive measure yet discovered in the war against infantile paralysis. Fighting an outbreak which has made increasing inroads since June, and which is not expected to reach its peak until the third week in September, Ontario hospitals and clinics are giving this preventive treatment free to children—at the rate of one thousand a day.

Never tested conclusively since its recent development by Dr. Max Minor Peet of the University of Michigan, the zinc sulphate spray's value as a preventive measure will be known soon as a result of the Ontario experiment.

"Ontario's experiment with five thousand cases will be of the utmost importance to medical science," Dr. Thomas M. Rivers, Director of the Rockefeller Institute Hospital of New York, told a Toronto newspaper over long-distance telephone.

"With animals the Peet spray works beautifully, but with children I can give no real opinion. There have been tests on individual cases, but for scientific purposes we need the results of hundreds of cases to have anything conclusive. We shall all be watching Ontario's results with the greatest interest."

Doctor Rivers said a picric acid spray, which has shown itself much inferior to the Peet spray in tests with animals, had been used last summer on thousands of children in Alabama, and showed some result, despite administration, in most cases, by insufficiently instructed physicians.

"The spray is certainly the most hopeful treatment so far," he declared.

Drs. Paul and John Rauch, staff members of the Hagmeier Clinic at Preston Springs, one of the Ontario institutions offering the free nasal spray treatment to children, declare that the spray, while not yet definitely proved a success in prevention of infantile paralysis, is "the only thing yct found of value as a preventive, and should be made a public health measure." Both have made a special study of the spray at Chicago.

Eight hundred children have been treated in five days at Hagmeier alone, Dr. Paul Hauch reports. The method of administering the spray, although requiring special training and instruction, is a simple one. Older children are treated with a nasal speculum and an atomizer. Younger

children, somewhat more difficult to handle, are treated with an ordinary atomizer and then held upside down for a moment to allow the spray to penetrate to a sufficient depth into the nostrils.

Official sponsorship of the treatment was urged by Doctor Rauch. "I think it should be taken up as a voluntary measure," he said. "When an epidemic comes along, medical health officers are usually more aware of it than general practitioners, can give first-hand information and have the facilities. From the standpoint of statistics, it would be valuable, too, as the more we can centralize the treatment the better."

The use of the zinc sulphate spray is not expensive, Doctor Rauch said, amounting to only a third of a cent per child. "It could easily be handled by any civic health authority without financial drain," he pointed out.

"The main essential is some sort of pressure equipment. All hospitals have such electric pressure machines, and they are not expensive to install." The pressure machine is needed, Doctor Rauch said, to enable the spray to reach an effective depth in the nasal passages.

"There is a point between the nose and the brain cavity," he explained, "which is merely a thin plate of bone—the cribriform plate—with numerous perforations. As far as medical knowledge can substantiate, it is the only point at which viruses such as meningitis and paralysis enter the brain. As far as experimental work has shown, it is through the nasal passages that the paralysis virus enters. It lodges on the mucous membrane of the nose and thus enters the blood stream.

"The only scientifically conducted experiments with the nasal spray yet made—those with monkeys—resulted in producing immunity for about 80 to 90 per cent of those treated, while 100 per cent of the other group—untreated—got the disease.

"Naturally, we do not hope for such a high percentage of immunization in children treated. But no matter what the percentage of cases successfully treated—we expect it to be between 25 and 50 per cent—it would still be more than worth while."

Reaction of the nasal spray treatment, Doctor Hauch said, was sometimes swelling of the nasal membranes, headaches, and occasionally stomach sickness. "But this just lasts for a day or, at the most, two, and then passes off. The reaction is not nearly as bad as that of the picric acid in an alum combination which they used to use, and which was more astringent."

Value of the spray lasts only a comparatively short time, according to Dr. Charles F. Bolduan, public health education director for New York City. "But the treatment," he said, "is comparatively simple, if done by a competent man. It's by all means worth trying so long as it's done right. Doctor Peet's spray and method is by all odds the most hopeful thing we know of so far."

Action of the spray is "simply a mechanical blocking of the olfactory nerve through which the virus gets up into the brain," Doctor Bolduan said. "It just prevents the nerve from letting the virus through."

Ontario's children and parents have responded to the offer of the free spray treatment by hospitals and clinics to such an extent that Toronto's city hospitals have speeded up clinics to take care of one thousand a day, it was announced.

Radium Supply.—America's richest hospitals—those of the Eastern seaboard states—need for the treatment of cancer sufferers nearly double their present supply of radium, according to preliminary findings of a survey conducted for Eldorado Gold Mines, Ltd., and announced recently in New York by Dr. Marcel Pochon, French scientist who directs Eldorado's refining and laboratory processes at Port Hope, Ontario, Canada. Doctor Pochon is a former student of Pierre Curie, discoverer of radium.

Now owning a total of 51,895 milligrams of radium, these Eastern hospitals revealed the need of an additional 47,470 milligrams—about 1.7 ounces, or a little over one-tenth of a pound—which, at present prices, would require an expenditure of $1,187,500. (A survey of hospitals througout the rest of the country, which, Doctor Pochon anticipates, will reveal an even greater need, is now under way.)

Results of this preliminary survey, following the ascertainment of rich reserves at the six-year-old Eldorado mine in the Canadian Arctic (only important producer of radium in the Western Hemisphere today—and one of the two in the world), have decided the Canadian radium company on the addition of a new and enlarged refinery, Doctor Pochon announced. This new refinery, to be in operation by the end of the year, will have a production capacity about three times greater than the present one. Production at the present plant, which a few months ago completed the manufacture of its first ounce of radium, is now at the rate of 2½ grams a month, or an ounce and a half a year.

The new refinery will make it possible to supply the most pressing radium needs of the United States hospitals, as well as those of the British Empire, which has up to now absorbed almost all of the Canadian output, according to Doctor Pochon.

A significant indication that funds for the purchase of needed radium in this country are likely to be available soon is the response in Congress to the bill proposing establishment of a national center for cancer research, prevention and control, the French scientist pointed out. The project which, so far, has been most favorably received, would provide for the expenditure of almost $3,000,000 on a cancer institute and hospital, as well as approximately $1,000,000 annually for its activities.

According to latest indications, the proposed cancer control program would not only include provision for radium treatment, but would provide for the purchase of radium to be loaned to state centers. This, Doctor Pochon said, would parallel somewhat the current British program.

Numerous unofficial inquiries from Washington have come to the Canadian radium laboratories within the last three weeks, Doctor Pochon said. "We have been able to tell them that Canada will be producing radium on an ascending scale for an indefinite time to come, and that the new refinery under construction will have resulted in a much larger output by the end of the present year. If there is any way that we can coöperate we naturally will do so."

With the price down to $25,000 a gram (from a one-time high of about $125,000), radium, according to Doctor Pochon, now compares favorably in cost with x-ray, the only other therapeutic method of treating cancer. Radium, he pointed out, has a life of 1,600 years, and requires no expensive apparatus in use, and no maintenance or replacement expenses.

The source of radium is the series of rich but still incompletely explored veins of pitchblende in the Eldorado mines at Radium City, on the eastern shore of Great Bear Lake, in the Canadian northwest territories, just south of the Arctic Circle, and about five hundred miles east of Alaska. Pitchblende is essentially a mixture of uranium compounds, of which about 50 per cent is uranium, a rare metallic element used as the base for brilliant yellow, orange and black pigments in the ceramics industry. Uranium, being an unstable element, with an oversized atom, breaks down at measurable geological speeds progressively into a long series of different elements, among which are radium and polonium.

While efficient production methods have introduced minor economies into the refining of radium, according to Doctor Pochon, it is primarily the richness of the Eldorado ore, discovered in 1929, which has made possible the reduction in price from about $75,000 a gram (the price then), to $25,000 (the current figure). The principal limiting cost factor is the vast amount of ore which must be mined and refined to produce a gram of radium—1,000,000 pounds of the Canadian ore (believed to be the world's richest) yield one gram of radium in final form.

The total amount of mined radium in the world (produced since its discovery by Pierre Curie in 1898), while not accurately catalogued, is generally estimated to be less than one and one-half pounds, or not quite 600 milligrams, not enough to make up a two-inch cube. Its value, at current prices, is about $15,000,000. Of about 225 grams believed to exist in the United States, one of the most comprehensive censuses reveals less than one hundred. Of about thirty grams in New York City, valued at $750,000, nine and one-half are held by Bellevue Hospital, and eight and nine-tenths by Memorial Hospital.

TWENTY-FIVE YEARS AGO†

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. X, No. 10, October, 1912

From Some Editorial Notes:

The People Will Suffer.—Unless all present indications are wrongly interpreted the people of the State of California will be left with little, if any, public health protection after the next session of the legislature adjourns. There will possibly be an appropriation to carry on the plague work among squirrels, but this will be due to pressure from the Federal Government, if it is made at all. . . .

* * *

"Send the Stickers."—In the September issue of the *Journal* appeared an article by Doctor Kress, Secretary of the Los Angeles Association, giving an account of the experience of their County Association in trying to start a collection bureau. That phase of the work they found unprofitable. But they did find that a set of slips, printed on gummed paper, each slip carrying a sentence or two calling attention to an account overdue, the slip to be pasted on the bill and sent to the debtor, brought excellent results. . . .

* * *

Medical Education in Europe—The Carnegie Foundation for the Advancement of Teaching, 1912.—This report on Medical Education in Europe also comes from the pen of Mr. Abraham Flexner, who has given us such a vivid and, on the whole, accurate description of the condition of medical education in our own country. . . .

From an Article on "Epidemic Poliomyelitis in Los Angeles" by Thomas J. Orbison, M.D., Los Angeles.—In the week ending Saturday, June 15, one case of poliomyelitis was reported to the Health Office of Los Angeles. In the next seven days, seven new cases were reported. Eleven cases were reported in the seven days following. The next two weeks totaled thirty-four and twenty-five new cases, respectively. Practically all of these cases were reported from the southeastern section of the city, and were grouped roughly along both sides of the river bed. . . .

From an Article on "Salvarsan in Obstinate Late Syphilitic Lesions of the Palms, Soles, and Mucous Membranes of the Mouth" by Douglass W. Montgomery, M.D., San Francisco.—Salvarsan is passing through the same phases as every good new remedy. Used at first for all the manifestations of syphilis at any stage, and praised as an unfailing cure, it is gradually taking its place with the other great specifics, mercury and iodid of potash, to be given either as part of a general course, or to combat special lesions uncontrollable by its fellow remedies. . . .

From an Article on "Early Diagnosis of Epidemic Poliomyelitis" by Ray Lyman Wilbur, M.D., San Francisco.—Our steadily increasing knowledge of poliomyelitis or epidemic acute meningo-encephalopoliomyelitis (Heine-Medinsche Krankheit) brings out more clearly than ever the necessity for early recognition of the disease if it is to be combated successfully either in the individual or in the community. If a curative serum is discovered or some chemical substance found that will destroy the virus within the body, it must be administered promptly before the damage to the nervous system has become irreparable; and if quarantine is to be an effective agent for common protection, it must begin with the onset of the disease. It is unfortunate that our knowledge of this scourge has been so confused by the paramount importance given to its striking complication, the paralysis. . . .

(Continued in Front Advertising Section, Page 28)

†This column strives to mirror the work and aims of colleagues who bore the brunt of Association work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By Charles B. Pinkham, M.D.
Secretary-Treasurer

News

"Dr. Max Hickok (licensed chiropractor), alleged abortionist, was arrested late yesterday on a bench warrant issued on charges that he threatened and harassed a woman witness for the prosecution in his impending murder trial. . . . Based on the complaint of Miss Helen Zeh, former receptionist for the dapper chiropractor, the order for his arrest was issued by Superior Judge Sylvain Lazarus following a brief hearing. . . . The complaint of the harassed witness was presented by Assistant District Attorney John J. McMahon and Lieutenant Michael Mitchell, head of the police homicide detail. McMahon declared Miss Zeh had been compelled to move three times since she testified last month at the preliminary hearing at which Doctor Hickok was held in $1,000 bail in the abortion death of Mrs. Elizabeth Sowers, Oakland mother of three grown children. Shortly after Miss Zeh had been compelled to move from the home of her sister at 573 Frederick Street, a shot was fired through the window, Judge Lazarus was told. The campaign was carried to Miss Zeh's new place of employment, and the witness charged that Miss Lloys (office nurse for Doctor Hickok) repeatedly telephoned Miss Zeh's employer, as well as herself, abusing both. . . . Object of the campaign allegedly was to obtain Miss Zeh's signature to a document which would exonerate the chiropractor of responsibility for the death of Mrs. Sowers." (San Francisco *Examiner,* August 19, 1937.)

"With two new secret indictments returned yesterday in the Grand Jury investigation of an alleged automobile insurance fraud ring, the total of those indicted was brought to twenty-eight. . . . The indictments charged conspiracy to commit grand theft and defrauding insurance companies by false reports. Listed in secret indictments returned Monday, nine persons surrendered yesterday and were arraigned before Superior Judge Charles W. Fricke, who set bail at $2,500 each. Those arraigned included: Dr. John E. Baker, Hollywood Receiving Hospital staff member who had been named in previous indictments; Joseph G. Bone and George O. Dorris, who have pleaded guilty to similar charges and are alleged to be ringleaders in the plot; Dr. Edward H. Anthony, former federal physician; Attorney J. B. Mandel; Mrs. Anna Howard, Long Beach housewife who allegedly confessed she struck herself on the head with a club to fake traffic injuries; George Elroy and his stepdaughter-wife, Pearl; and Jessie Yates." (Los Angeles *Daily News,* August 18, 1937.)

"Following several months of surveillance, O. Pierre Gallardo, 31-year-old osteopathic physician, with offices at 609 South Grand Avenue, and a male companion, Max Barnett, thirty-six, were arrested today by federal agents and police on charges of violating the Harrison Narcotic Act. Federal Agent George Gillenhammer said the men were arrested in Chinatown early today after one of the undercover agents had purchased a quantity of morphin from the two men. . . ." (Hollywood *Citizen-News,* August 19, 1937.)

"The motion for a new trial of Dr. Claude C. Long, San Francisco physician convicted of manslaughter in the abortion death of Mrs. Genevieve Arganbright, was denied yesterday by Superior Judge Sylvain Lazarus. Long was sentenced to a term of from one to ten years in San Quentin prison, but was granted a five-day stay of execution on the motion of his attorneys, John Taaffe and Edward Cunha. Judge Lazarus upped bail from $7,500 to $12,500, pending

(Continued in Front Advertising Section, Page 30)

† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.

BAXTER'S

INTRAVENOUS SOLUTIONS IN VACOLITERS

They're the finest that we know how to make

When the operation's done, they've wheeled your patient away . . . when little doubts and fears keep querulously asking, wondering . . . there's *one* that won't trouble you.

Granted you needed and used an intravenous solution, granted that you specified Baxter's in Vacoliters . . . *we* think you'll feel a sense of security knowing that BAXTER'S will do *its* part.

Baxter's . . . in Vacoliters . . . will do its part because all it has to do has been planned and made sure, so that it *will* do the helpful healing task you use it for.

It is *sterile*, as sterile as that word means . . . *your* patient will not be in danger. It is *stable* and the solution you think you've injected *is* the solution you *have* injected. You can have peace of mind there, too.

In medicine and in surgery there are a few fine things that have no counterpart. Solely by right of their quality they stand apart from their kind to give you peace of mind, a surety in action and a certainty that is incomparable.

These are descriptive of Baxter's Intravenous Solutions in Vacoliters. They give you peace of mind . . . are the finest that we know how to make.

The fine product of

DON BAXTER, Inc.

Research and Production Laboratories

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It's Untrue!

IT IS REPORTED that a representative of one of the largest and best known "gyp" collection agencies in California has claimed to a number of the Bureau's good clients in different sections of the State that his concern is *associated* or *affiliated with* The Doctors Business Bureau.

THIS CLAIM IS DEFINITELY UNTRUE, and all Doctors and Hospitals are earnestly warned to be on the lookout for this malicious use of the Bureau's name and reputation by any other unscrupulous concern in an effort to get business.

Millions of dollars are lost to Doctors and Hospitals yearly by "taking chances" needlessly.

WHY DO IT? Why turn your accounts over to any concern which has not been investigated and passed upon by your local Society, your State Association or your Better Business Bureau? . . . The Bureau urges you again to—

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2006 Wilshire Blvd., Los Angeles **Telephone EXposition 2121**

BOARD OF MEDICAL EXAMINERS

(Continued from Front Advertising Section, Page 30)

charged with prescribing, diagnosing and treating cases. . . . Lee contended that he did no diagnosing, merely selling herbs to persons who came to him and told him their ailments." (Long Beach *Press-Telegram*, August 11, 1937.)

"Police Judge Will J. Carraghar today fined Ted Markowitz, twenty-five, an employee of the Ignatz Drug Company of 400 K Street, $200 for prescribing medicine without a physician's license. Markowitz was found guilty Tuesday, and was granted a two-day continuance for the pronouncing of the sentence. The state medical department (Board of Medical Examiners) charged the employee examined and prescribed medicine to a man who was suffering from a venereal disease. Max Markowitz and Sam Landau, realty men, were granted a continuance until Tuesday to enter a plea to a charge of concealing evidence. They were arrested last week following a raid on the Ignatz Drug Company, in which Bennie Ignatz was arrested for selling illegal narcotic suppositories. A marked $20 bill used for the purchase was found in the safe of Max Markowitz' realty office, which is operated by Landau." (Sacramento *Bee*, September 2, 1937.)

"W. C. Fields, bulbous-nosed movie comedian, after losing a second round in a fight to avoid a $12,000 medical fee for his recent serious illness, indicated today that he will fight on. Superior Judge O. K. Morton, in Riverside, denied Fields a retrial of the suit, which resulted in a judgment for Dr. Jesse Citron. The Judge did, however, eliminate interest charges. Fields indicated he would appeal." (Los Angeles *Herald and Express*, September 2, 1937.)

FRANKLIN
HOSPITAL

Limited General Hospital with accommodations for 220 patients located in a seven-acre park. Fourteenth and Noe Streets, San Francisco.

Fully approved by the American College of Surgeons and the American Medical Association for Interne Training, and maintaining an Accredited School of Nursing.

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President

LeROY BROOKS, M. D.
Chief of Staff

FRANK SCHMIDT
Superintendent

"J. Edgar Hoover's Federal Bureau of Investigation operatives are again on the trail of physicians consorting with the underworld. The Federal Bureau of Investigation chief disclosed this on a surprise visit to the Pacific Northwest today, which he denied was in connection with the Mattson kidnap-murder case at Tacoma. Recalling the Federal Bureau of Investigation's prosecutions of physicians who aided gangsters in face-lifting and fingerprint eradicating operations, Hoover said the Government now is after physicians who treat women involved in white slavery. He forecast a Pacific Northwest drive by G-men against white slavery." (Associated Press dispatch dated Seattle, September 8, 1937, and printed in the San Francisco Call on the same date.)

"Dr. Gordon L. McLellan, San Leandro physician, his wife, Annabelle, and his nurse, Lucile Bouton, were held to answer in Superior Court today on a charge of conspiracy to commit an abortion. . . ." (Oakland *Tribune*, July 26, 1937.)

"Unable to agree on a verdict after seventeen hours' deliberation, a jury which heard murder charges against Dr. Samuel D. Burgeson, Belvedere Gardens physician accused of causing the death of Mrs. Pauline Womack through an illegal operation, was discharged late yesterday by Superior Judge Frank M. Smith. The case was ordered reset for retrial today." (Los Angeles *Times*, July 29, 1937.)

Investigation reports indicate that Buron L. Corley, licensed chiropractor, operating the Corley Health Institute, and frequently broadcasting in San Francisco, was, on August 18, 1937, found guilty in the court of San Francisco Municipal Judge Frank W. Dunn of violation of Section 15 of the chiropractic initiative, which prohibits the use of the prefix "Dr." without following individual's name by the suffix "D.C." or the word "chiropractor." On August 23, 1937, he was sentenced to pay a fine of $200 and given a three months' county jail sentence, suspended; however, "a ten-day stay was granted and during this ten-day stay the sentence was reduced to $100 as a fine, with no jail sentence." Two other complaints pending before Municipal Judge Twain Michelsen were, on August 30, 1937, dismissed on the grounds that the defendant had been once in jeopardy. The report also relates that Buron L. Corley admitted having pleaded guilty to a violation of Section 17 of the Medical Practice Act in 1931 for his use of the prefix "Dr." without a suffix, the arrest assertedly having been made by our then special agent, J. W. Davidson.

The control of syphilis and gonorrhea, the two most important social diseases, can be brought about by earlier and better education concerning their nature, their prevention, earlier diagnosis and facilities for continued, adequate treatment.

For Acidity and Allied Conditions, we suggest
ADAMS SPRINGS MINERAL WATER

● MANY physicians recommend the water in conjunction with the treatment of stomach, liver and kidney trouble.

ADAMS MINERAL SPRINGS is one of the seven known iron and maganese bi-carbonate springs in the world, and the only one in Western America.

It is not a cure-all, but it overcomes acid excesses in the body, and is a very mild but wonderfully effective eliminator. The bowels function without spasm, the kidney output is greatly increased, and there is *marked* drainage of bile from the gall bladder and liver.

There is also some constitutional upset for a few days, particularly in gall bladder cases. But this is soon over and your patient begins to show improvement and is now in condition to profit by any medication you may prescribe. If the case is an operative one, you have improved your patient and made of him a better risk.

We will be pleased to cooperate in any way whatever, and samples of water are yours for the asking.

A Natural Mineral Water
SHOWING MAIN CONSTITUENTS
By PROF. SYDNEY A. TIBBETTS, *Berkeley*

MANGANESE	1.3 parts per million
IRON	12.5 parts per million
CALCIUM	173.3 parts per million
MAGNESIA	339.3 parts per million
SODIUM	365.0 parts per million
SILICA	93.0 parts per million
CHLORINE	38.3 parts per million
SULPHATE	16.1 parts per million
NITRATE	0 parts per million
PHOSPHATE	.7 parts per million
CARBONATE	1551.4 parts per million
TOTAL	2591.4 parts per million

For further information write W. R. PRATHER, D. D. S.
ADAMS SPRINGS, LAKE COUNTY, CALIFORNIA

Steam heated hotel, open all year around.

3000 feet up in the Lake County Pines.

(Since 1870)

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Palatable ALKALINE *Sparkling*

NOT A LAXATIVE

Calso Water: An efficient method of supplying the normal ALKALINE SALTS for counteracting ACIDOSIS.

Calso Water: Made of distilled water and the ALKALINE SALTS (C. P.) normally present in the healthy body.

Calso Water: Counteracts and prevents ACIDOSIS, maintains the ALKALINE RESERVE.

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Conducted by Sisters of Mercy

Accredited by the American Medical Association and Approved by the American College of Surgeons. Open to all members of the California Medical Association. Accredited School of Nursing and Out-Patient Department.

United States Department of Agriculture: Pure Food and Drug Laws.—Patent Medicines Adulterated, Misbranded—During July there were seized one shipment of sodium phenobarbital ampoules found to be unsterile, and these patent medicines alleged to be adulterated or misbranded, or both: "Merit Aspirin Tablets," offered as a treatment for grippe; "Dr. Naylor's Tonic for Horses," "Dr. Naylor's Direne," "Dr. Naylor's Udder Liniment," "Dr. Naylor's Udder Balm," and "Dr. Naylor's Clearalac," veterinary preparations offered for the treatment of several serious disease conditions in horses and cattle, but in fact not efficacious in their treatment.

"Colac Pile Pills," containing plant extracts, juniper tar, magnesium oxid and sugar, sold as a treatment for piles; "Corona Wool Fat Compound," composed of hydrous wool fat (lanolin) with small amounts of wintergreen and salt, for cuts, wounds, sores, and boils on man or beast.

"Counts' Kill Germ," consisting of mineral oil, small amounts of pine-needle oil and water, found to be not antiseptic by official test, and recommended for rheumatism, coughs, colds, asthma, indigestion, catarrhal bronchitis, catarrh of the stomach or ulcerated stomach, sores, burns, boils, carbuncles, felons, cuts, ringworm, erysipelas, gaulds, inflammation of the mucous membranes, eye, ear, nose or throat, for piles, and to use as a blood purifier; "Edwenil," consisting of one-tenth of one per cent of magnesium and nitrogenous compounds suspended in a solution of table salt and carbolic acid, found to be ineffective against the pneumococcus, although recommended as a treatment for pneumonia and other infectious diseases.

"Eupraxine Skin Ointment White," also labeled "Eupraxine Eczema Salve," made of zinc stearate and boric acid in petrolatum, and "Eupraxine Wound Salve," made of ichthammol and petrolatum, offered for the treatment of eczema, ulcers, sore legs, acne, pimples, and for the treatment of fresh, inflamed, or poisoned wounds, burns, felons, carbuncles, bunions, and erysipelas; "Dr. Miller's Tonic Prescription," an alcoholic syrup containing plant drugs and a laxative, bearing no declaration on the label of the presence of alcohol, for biliousness, sick headache, insomnia, dizziness, indigestion, ulcers of the stomach, gall-stones, gall-bladder infection, liver complaints, and thirty additional serious disease conditions.

"Mimein Laxative-Aspirin," found to consist not of aspirin but of one grain acetanilid per tablet, one-tenth grain aspirin per tablet, and plant drugs including caffein, cascara sagrada and aloin, for flu, headache, and colds; "Sana Sal," consisting of magnesium, calcium sodium and potassium chlorids and bromids, and represented as "the salt of life," for the treatment of rheumatism, arthritis, neuralgia, insomnia, poliomyelitis (infantile paralysis), and skin and joint diseases.

"Skoot," a water-and-gum suspension of wintergreen and menthol, for sore throat, headache, toothache, stiffness, soreness, pains, inflammation, congestion, tonsillitis, croup, rheumatic pain, lumbago pain, pleurisy pain, sprains, and aching feet; "Theradophilus," represented as a good source of bacillus acidophilus, but found to be markedly deficient.

"Van's Magic Oil," linseed oil containing camphor and eucalyptus, for nervous and inflammatory diseases, headache, toothache, rheumatism, lame back or side, neuralgia, burns, cuts, bronchitis, sore throat, hoarseness, and piles; and "Sun-Ray Vita-Lax," consisting of bran, agar agar, psyllium seed, yeast and phenolphthalein, falsely represented as "the original vitamin laxative," for headache, nervousness, dizzy spells, backache, poor appetite, pimples or acid skin, kidney, liver and gall-bladder trouble, rheumatism, and arthritis.

Criminal Prosecutions Ended

Criminal prosecutions terminated during July involved four shippers of foods and eleven of drug preparations. The defendants, nature of offense, and disposition of the case, are as follows: Starr Fruit Products Company, Portland, Oregon, canned cherries containing larvae, fine $50; Younglove & Company, Tacoma, Washington, canned huckleberries containing larvae, fine $20 and costs; Paul C. Skrmetta, trading as Skrmetta Seafoods, Inc., New Orleans, Louisiana, canned shrimp, partially decomposed, fine $20.

(Continued on Page 38)

CANNED FOODS IN THE CONTROL OF LATENT AVITAMINOSES

● In June, 1935, this space was devoted to a discussion of some of the general aspects of latent avitaminoses. It appears pertinent to report some of the more recent ideas in regard to this important field.

Considering the subject of avitaminoses in its entirety, the modern medical attitude is aptly expressed by the following statement: "... the mild or latent forms of the vitamin deficiencies are more important in practice at present than the fully developed cases. The latter are uncommon, are easily recognized and are usually promptly and adequately treated. On the other hand there is reason to believe that minimal or mild forms of these diseases are much more frequent, often escape recognition and, because of their insidious effect on large numbers of people, constitute a more serious problem than the occasional advanced cases." (1)

Consideration of this statement brings home the importance of optimum vitamin intake. Students of nutrition agree that in order to achieve this objective, a liberal and varied diet must be available. The constituents of the diet should be wholesome foods, the preparation of which has not materially reduced their intrinsic nutritive values. Commercially canned foods fall well within this classification.

Modern canning procedures are designed to protect the vitamin potencies of the food. Recent reports in the scientific literature indicate the success attained in retaining vitamin values in commercially canned foods. (2)

In general, the control of latent avitaminoses and the advancement of positive health appear to be largely matters of practical application of facts made available by the modern science of nutrition. We wish to direct attention to the part which the wide variety of canned foods available on the American market may play in establishing dietary regimes calculated to control the avitaminoses.

AMERICAN CAN COMPANY

230 Park Avenue, New York City

(1) 1937. J. Am. Med. Assn. 108, 15.
(2) 1936. J. Nutr. 12, 405.
(2) 1936. J. Am. Diet. Assn. 12, 231.
1936. J. Nutri. 11, 383.
1936. Ind. Eng. Chem. 28, 1009.
(2) 1935. J. Home Econ. 27, 658.
1935. U. S. Pub. Health Rpts. 50, 1333.
1935. Am. J. Pub. Health 25, 1340.

This is the twenty-ninth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods

The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

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THE LONDON LANCET says: "There are two spots in the world with the most equable climate. One is Assuan, Egypt, the other is a little town in the foothills of the Santa Cruz Mountains in California, called Los Gatos."

Rates, Information and Booklet on Request

(Continued from Page 36)

Lamar Alfalfa Milling Company, Lamar, Colorado, alfalfa meal containing less protein and fat and more fiber than claimed in its labeling, fine $200; De Pree Company, Holland, Michigan, substandard tincture of iodin, fine $200; F. W. Bascomb & Son, Inc., Detroit, Michigan, substandard sodium fluorid tablets and phenobarbital tablets, fine $800, suspended, and defendant corporation placed on five years' probation.

Sutliffe & Case Company, Peoria, Illinois, substandard acetanilid compound tablets, fine $50 and costs; Lane Drug Stores, Inc., Atlanta, Georgia, fined $50, and National Magnesia Company of Illinois, Chicago, Illinois, fined $50 and costs, for shipments of substandard solution of magnesium citrate; Roberts Industries, New York, N. Y., substandard spirits of turpentine, fine $50; S. C. Wells & Company, LeRoy, New York, "Shiloh Remedy," a water solution of terpin hydrate, oil of tar, peppermint oil, chloroform and glycerin, for coughs, angina, hoarseness, whooping cough, inflammation of the bronchi, shortness of breath, consumption and all pulmonary diseases, fine $200.

World's Wonder Medicine Company, Inc., Detroit, Michigan, "World's Wonder Massage," consisting of ammonia water, quinin, volatile oils, wintergreen, camphor, oil of turpentine, alcohol and water, and "World's Wonder System Builder," consisting of Epsom salt, extracts of plant drugs, sugar and water, for indigestion, scrofula, kidney trouble, dyspepsia, chronic stomach trouble, rheumatism, blood diseases, syphilis, pneumonia, pleurisy, fine $200, suspended, and firm placed on five years' probation.

The Spors Company, Le Center, Minnesota, "Foot Pal," "Big Chief Herbs and Oils Inhalant," and "Minnehaha Indian Herbs," represented as treatments for stomach disorders, skin diseases, headaches, catarrh, hay fever, asthma, blisters and wounds on the feet, fine $25; Bleecker-Foster, Inc., St. Paul, Minnesota, "Simba," consisting of plant extracts, magnesium sulfate, sodium salicylate, alcohol and water, for disorders of the stomach, liver, kidneys, and

(Continued on Page 41)

At the first suspicion of pneumonia—

TYPE IT!

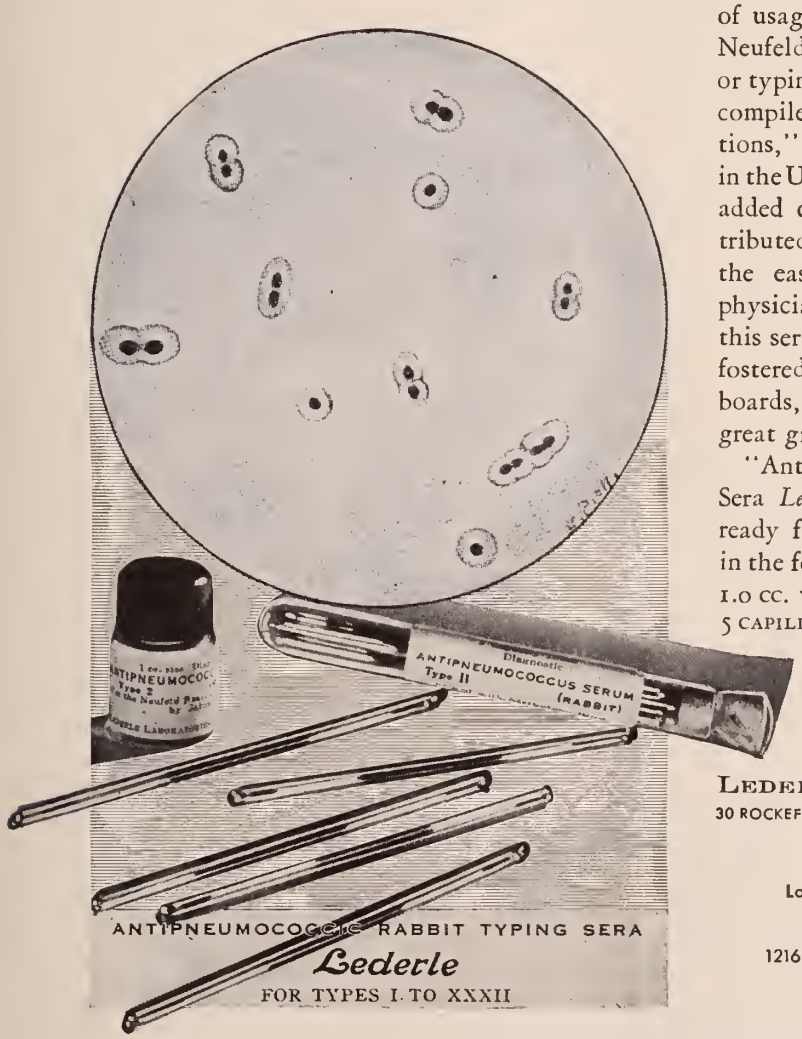
PNEUMONIAS OF DIFFERENT ETIOLOGY are distinct diseases. Early specific treatment —so vital to successful serum therapy—is possible only when the type of pneumococcus is determined immediately.

The Neufeld method, for pneumococcus typing directly from sputum, is simple, accurate and permits of a diagnosis being made within a few minutes' time.

Although the technique of typing can be readily learned by any practitioner, the trend of usage is to convey sputum for the Neufeld tests to experienced pathologists or typing stations. Lederle has recently compiled a "Directory of Typing Stations," finding more than 1700 of them in the United States now and more being added constantly. They are well distributed and there is at least one within the easy reach of practically every physician. The swift development of this service in the last year, frequently fostered and advertised by state health boards, is eloquent testimony to the great growth of serum therapy.

"Antipneumococcic Rabbit Typing Sera *Lederle*" for Types I to XXXII, ready for immediate use, are available in the following packages:

1.0 CC. VIAL
5 CAPILLARY TUBES FOR INDIVIDUAL TESTS



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Council on Foods

If it is desirable to control acidification more accurately, may we suggest the use of Poland Water, because it is extremely pure — chemically and bacteriologically — and it is NEUTRAL.

Poland Water

PURE NATURAL

Agencies in leading cities

BOTTLED ONLY AT POLAND SPRING, MAINE

(Continued from Page 38)

blood when caused by constipation auto-intoxication, and improper digestion, fine $5.

W. H. Bull Medicine Company, Inc., and Harley E. Houts, St. Louis, Missouri, "Quick Pile Relief," pine tar incorporated in a petrolatum base, not antiseptic although represented as such in its labeling, and offered for the treatment of external and internal piles, cuts, burns, old sores and foul ulcers, fines totaling $250.

Oral Hygiene.—The importance of having a clean and healthy mouth and the relation of mouth conditions to general health has long been recognized. Oral hygiene, or health care of the mouth, includes care of the teeth, gums, tongue and all the soft tissues of the mouth, and is of the first importance in conserving the health of the whole body. It has only been in the last few years that the general public has realized the relationship between a healthy mouth and good general health. A healthy citizen is recognized as the greatest asset of a community, municipality, state or nation. The child of today is the controlling factor of government of tomorrow and unless we can instil into their minds the importance of dental and general health our physical and mental standards as a nation will fall.

The tooth buds begin to form in fetal life at about the fifth week and strong deciduous or baby teeth depend entirely upon the food the mother takes into her body. If she does not have the proper amount of bone-building material in her daily diet, then this necessarily must come from her own body. Her diet should consist of vegetables, fruit, milk, whole-wheat bread, butter and cream. Meats and other rich foods should be taken in small quantities. She should be as free as possible from nervous strain or irritation and her environment should be as pleasant as possible. The maintenance of good health during this period is a mighty factor in the development of sound teeth and a healthy body. Practically in every case where children are breast-fed their teeth are much stronger than those of the bottle-fed baby. Breast milk contains those elements that are of the highest importance, because they combine all the properties necessary to a healthy body. During all of this period the mother should carefully guard her health and consult her physician and dentist at regular intervals.

There is much ignorance on the part of parents as to the time teeth erupt, and because of this, very often valuable teeth are lost. As is well known we have two sets of teeth, the deciduous teeth, of which there are twenty and usually begin to appear around the sixth month. Centrals, 6 to 8 months; laterals, 7 to 9 months; first molar, 12 to 16 months; cuspid, 14 to 20 months; and second molar, 20 to 30 months. The lower teeth usually erupt before the uppers. Nature has wisely provided the eruption of teeth as the child grows and develops and is able to eat harder foods.

Very often considerable functional disturbance occurs while teeth are being erupted. There may be considerable inflammation of the gums, and sometimes sacs, filled with fluid, form over the area where the tooth is supposed to erupt. The inflammation should be removed as quickly as possible either by lancing or giving the child some hard substance upon which to chew, which will have a tendency to break the gum over the tooth, thus allowing the tooth to force its way through. It is especially important at this time to keep the mouth as clean as is humanly possible, otherwise infection may be carried into the stomach and digestive tract, which might result in more disturbance.

Close observance should be given when the baby molars start to erupt and particular attention should be given to brushing and cleansing. At this stage the fissured tops of the teeth are more liable to decay, because they prove an easy lodging place for food and germs. Careful attention should be given to these baby teeth and they should be retained until the eruption of the permanent teeth. If the baby teeth are lost before the permanent ones come in, a contraction of the jaw is liable to take place, leaving insufficient room for the larger permanent teeth.

Decay in baby teeth should receive attention because if neglected the teeth break down rapidly; the nerve of each infected tooth becomes inflamed and an abscess may form on the root. Prompt attention should be given because

(Continued on Next Page)

St. Luke's Hospital

SAN FRANCISCO

A Limited General Hospital of 200 Beds

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Fully approved by the American College of Surgeons and the American Medical Association for Resident and Intern Training.

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(Continued from Preceding Page)

there is a likelihood of the pus breaking through the face. Parents should be cautioned against applying a hot water bottle, poultice, or heat in any form to the face in these cases. A cold pack should be applied and every effort made to keep the pus from breaking through the skin. In all instances the family dentist should be consulted and the source of infection removed as soon as practicable for the well-being of the child and as a protection to the permanent teeth. This space can be retained by having the dentist place space retainers.

The period between the sixth and twelfth year is considered very essential because it is between these years the deciduous teeth are being replaced by the permanent ones. The most important tooth in the permanent set is the six-year molar, which through ignorance and neglect is more frequently lost than any other tooth in the mouth. It erupts just back of the last baby molar and is the sixth tooth back from the front on either side above or below. The six-year molar is the keystone of the arch and its loss is liable to cause much trouble because of a narrowing of the jaw, which leaves insufficient space for the remaining permanent teeth to erupt in regular order.

Cleanliness of the mouth, prompt attention to filling of teeth, and the correction of other faulty mouth conditions are not altogether sufficient to insure a sound set of teeth. Proper nutrition is of the highest value in sound health building. Too much emphasis cannot be placed upon the necessity of a properly balanced diet. Ill-balanced nutrition and a faulty diet may be responsible for a breakdown in later life.

In order to aid in producing strong teeth the diet should consist of simple, wholesome food. Hard foods should be provided, which will require the child to exercise the jaws and muscles, and thereby produce a higher state of development. Ordinarily a sufficient amount of sugar is contained in the various foods to satisfy the demands of the body. Giving candy to children between meals should be avoided. If any is given it should be immediately after meals.

(Continued on Page 44)

Open Sesame!

Certain sales and advertising campaigns, when ingeniously planned, succeed. Others, hastily conceived, fail entirely, or fall far short of their full possibilities.

Consequently, every progressive business man is forever seeking some magic formula that will permit him to break through the guarded *sales resistance* of his prospects.

Advertising literature, such as brochures, catalogues, broadsides, folders, etc., are effective mediums, when once confidence in the firm advertising has been established. But until then, a more intimate and subtle means of introduction is suggested—namely, an external house organ.

A number of sales promotion executives, after exhaustive surveys, decided on the house organ as the initial printed piece of their advertising campaign, and gave the following reasons for their decision:

1. **It costs less to prepare, print, and mail a sixteen-page house organ than three average mailing pieces.**
2. **A house organ will attract more attention, will be more closely read, and will be preserved longer than a piece of loose printed matter.**
3. **A house organ, aside from its direct sales value, is an ambassador of good will, second only to a personal call from the head of the firm.**

When you begin making plans for YOUR house organ, we invite you to avail yourself of the unlimited facilities and the expert counsel we have to offer.

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As an adjuvant in many hepatic and gastric affections, Vichy Celestins has long been prescribed by physicians the world over.

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(Continued from Page 42)

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Can the Earth Ever Become Overpopulated?—Many minds have been agitated over this question—if indeed it can be estimated with any degree of accuracy. Malthus of England more than a hundred years ago predicted that in less than a century the population of the earth would normally increase to such an extent that there would not be room for all. In reality, the number of the world's inhabitants has grown more rapidly than was prophesied at that time. The decrease in infant mortality and the control of epidemics, despite wars and the heavy toll of accidents, increased the earth's population from six hundred million in 1800 to nearly two thousand million in a century. The inhabitants of Europe alone increased from one hundred and seventy-five million to five hundred million. Moreover, the yield of the land has increased in greater ratio, and the ease and speed of modern transportation, facilitating international commerce, make it possible, according to a statement of Burgdorf, that the earth can accommodate six to eight thousand million persons without exhausting its resources; and with our increased knowledge of the laws of nature and improved methods of cultivation, its possibilities are yet unsuspected.—*Gesundheutswacht.*

Stillbirths and Maternal Mortality.—Women who bear stillborn or premature babies suffer a much higher mortality rate than do those delivered of live babies at term. Statistics gathered from leading maternity hospitals show that the death rate among mothers of stillborn children carried to term is twenty-one times that of women whose pregnancy follows the normal course. The respective death rates are 471 as against twenty-three per 10,000 deliveries. The situation is particularly bad when both abnormal conditions, stillbirth and premature birth, occur together. Women thus delivered of a premature stillborn child had a mortality of 514 per 10,000 births. On the other hand, mothers giving birth to premature live babies had a death rate of 165 per 10,000 births, which is still seven times the mortality of mothers delivered of live babies at term.

These figures reflect the experience of leading hospitals only, where facilities and personnel are the best obtainable; in smaller and less well-equipped institutions, the results of confinement are doubtless even more tragic.

It has been estimated that at least two-thirds of all stillbirths and deaths of young infants are due to prematurity or obstetric injury. Quite generally it can be said that premature births, stillbirths, and deaths of infants in the first month result directly from some disorder of pregnancy or from abnormal conditions accompanying delivery. Every year there are registered in the United States about 75,000 stillbirths, together with 70,000 to 80,000 deaths of newborn infants which are thus directly attributable to some disorder of prenatal or natal origin. The effect of the influences which lead to stillbirth and prematurity in maintaining the high maternal mortality rate in this country can readily be appreciated.

In spite of this, the subject of stillbirth and its causes has received relatively little attention from public health students. During the past fourteen years the ratio of stillbirths to live births in the Original Birth Registration Area has been reduced less than 16 per cent, whereas the infant mortality rate in this area has declined more than 38 per cent. Today, two stillbirths are registered for every three infants who die during their first year of life. Furthermore, of the three infants who die during their first year, at least one succumbs during the first two days following birth, from causes arising in pregnancy or from conditions directly connected with delivery.

By and large, physicians and public health workers have neglected the newborn infant, taking for granted that the causes responsible for the high mortality at this early period of life are beyond control. Yet it is safe to say that

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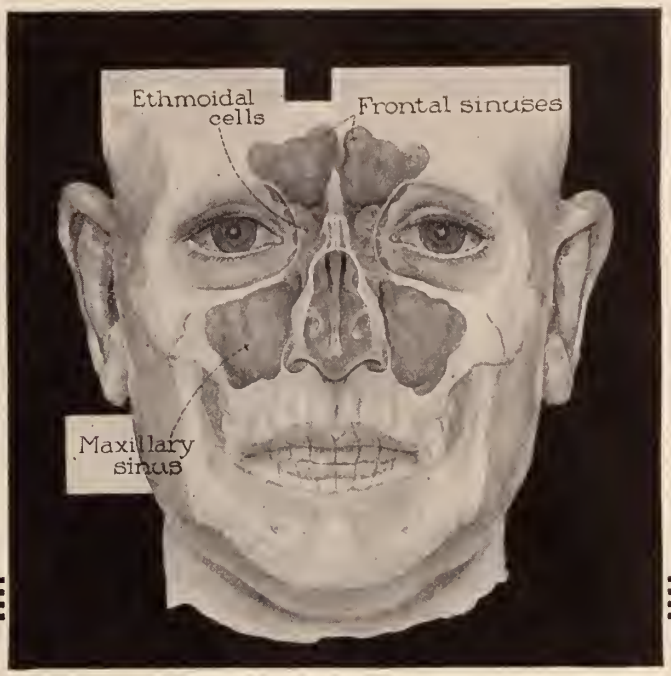

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(Continued from Page 44)

at least half of the lives of mothers and babies currently sacrificed to these conditions could be saved by proper obstetrical care before and during labor. Outstanding among these causes are syphilis, the toxemias of pregnancy. and injuries at birth.

Syphilis is probably a more potent factor in stillbirth and neonatal death than available figures would indicate. It is estimated that at least 60 per cent of the pregnancies of syphilitic mothers end in stillbirth. Also, it has been estimated that from 3 per cent to 5 per cent of pregnant women are syphilitic. If this is true, there must be from 36,000 to 60,000 women each year who are subject to the special dangers arising from pregnancy complicated with syphilis and resultant stillbirth. Most of this is today unnecessary, since syphilis can readily be diagnosed early in pregnancy and adequately treated.

The toxemias of pregnancy are responsible for a large proportion of the deaths of pregnant women, probably from 20 per cent to 25 per cent. Needless to say, they constitute an equally serious factor in the production of premature infants and of stillbirths. The great majority of such cases, possibly as high as 75 per cent, are also preventable by watchful prenatal care.

In a great many stillbirths, however, the child's life is destroyed during labor. Exact figures are not available, but there is good authority for the statement that 60 per cent of all stillbirths are entirely due to abnormalities and difficulties encountered during birth. For this, poor obstetrics are primarily responsible. A number of surveys here and abroad agree in finding that the knowledge and training of many of our practitioners are inadequate for the safe practice of obstetrics. According to leading authorities, this situation will not be corrected until both the public and the medical profession cease to regard childbirth casually as a normal function, whereas in many cases it develops into an extremely serious condition, calling for the highest grade of medical knowledge and skill. In the meantime, every hospital should hold itself morally responsible for the safe outcome of every confinement conducted within its walls, and assume strict supervision of all cases introduced by visiting physicians as well as of those handled by its private staff.

To sum up, the physiological welfare of the expectant mother is closely bound up with that of the developing fetus. Certain conditions found so fatal to the fetus and the newborn infant are equally disastrous to the mother. They cause annually an enormous loss of life—even greater than current statistics reveal. In addition, every year, a great number of women are forced to seek hospital aid for the correction of impairments and injuries contracted during pregnancy and labor. This wastage of life and the accompanying invalidism are especially deplorable in the face of our rapidly declining birth rate. The country needs these mothers and children.

As a prime requisite toward remedying the situation, a thorough and scientific study of the causes of stillbirth and of prematurity is in order.

Intramuscular Injections. — In getting ready for an intramuscular injection in the buttocks, it is well to divide the buttock into quadrants; an invisible line may be dropped down the center of the buttock and a line at right angles to this across the middle transversely. The injection should be given in the outer quadrant at the inner angle. In this area there is the least danger of affecting nerve structures or large vessels, and of causing a deposit that will be irritated when the patient sits down.

The Child tends to repeat that which gives him pleasure, or what is associated with a pleasurable experience.

No Sex Crime Trivial, Psychiatrist Says, Urging Mental Examinations.—Mental examination of all persons convicted of sex crimes would meet with the approval of physicians who specialize in the treatment and study of the mentally ill. Such a plan as that proposed for New York City is considered a step in the right direction.

Many of those guilty of such offenses are seriously ill mentally, says Dr. John E. Lind, in charge of the criminal insane at St. Elizabeth's government hospital here. Although very little can be done toward curing the sexually abnormal adult, it is very important that they should be segregated for the protection of society and should be given medical care.

Those guilty of sex offenses usually are in one of three groups, Doctor Lind explained. First, the feeble-minded are frequently guilty, not that they are sexually abnormal, but they lack the intelligence to control their behavior and the initiative to find in marriage a socially acceptable outlet for their sex impulses. Another group are old men who are becoming senile; like the feeble-minded they are not responsible, and cannot control themselves. The third group are the truly sexually abnormal; although such persons may go through life without doing anything publicly that would get them into trouble with the law, they are always a potential danger and may at any time be guilty of serious crimes against innocent persons.

Sex crimes against children are not, medically speaking, different from those against adults. Children are the victims, with pitiful frequency, because they are so helpless, because they are easily lured away into sequestered places, and because they would not be able to betray the attacker by an accurate description or might be silenced by threats.

No sex crime is considered trivial by the physician. Although an attack upon a child arouses a much greater public resentment and results in more serious legal punishment, those other offenses that are usually dismissed with a five-dollar fine in police court—those of the "masher" type—are just as serious to the physician because they are symptoms of sexual abnormality which may just as well later find expression in rape or sex murder.—Copyright, 1937, by Science Service.

Malaria in California.—Malaria has been present in California since 1840 and, at times, has been reported in epidemic proportions. In 1909 the California State Board of Health began surveys of malarial districts and stimulated the organization of local mosquito abatement districts. Legal provision for the establishment of such districts followed in 1915. In 1919 the Board carried on an active demonstration in the control of mosquitoes and malaria in one of the northern interior counties. Similar methods of control have been adopted as standard and are now employed in the twenty-five local districts now operating with the technical assistance of the Board's sanitary engineers. The malaria case rate has fallen from 31.3 in 1919 to 2.7 in 1934. There have been not more than five deaths from the disease, annually, during the past five years. The provision of safeguards against cases imported from other states and countries now constitutes an important attribute in keeping malaria within bounds.

Malaria Mortality Rates for California Per 100,000 Population, 1913-1934

Year	Case Rate	Death Rate	Year	Case Rate	Death Rate
1913	2.8	2.8	1924	2.4	0.54
1914	12.1	2.5	1925	1.7	0.63
1915	17.9	1.5	1926	1.9	0.19
1916	30.7	1.8	1927	1.1	0.30
1917	23.7	1.5	1928	1.5	0.32
1918	20.4	1.7	1929	1.8	0.29
1919	31.3	0.8	1930	1.6	0.21
1920	13.7	0.96	1931	1.3	0.12
1921	7.2	1.14	1932	0.8	0.08
1922	5.4	0.78	1933	1.3	0.05
1923	4.7	0.76	1934	2.7	0.07

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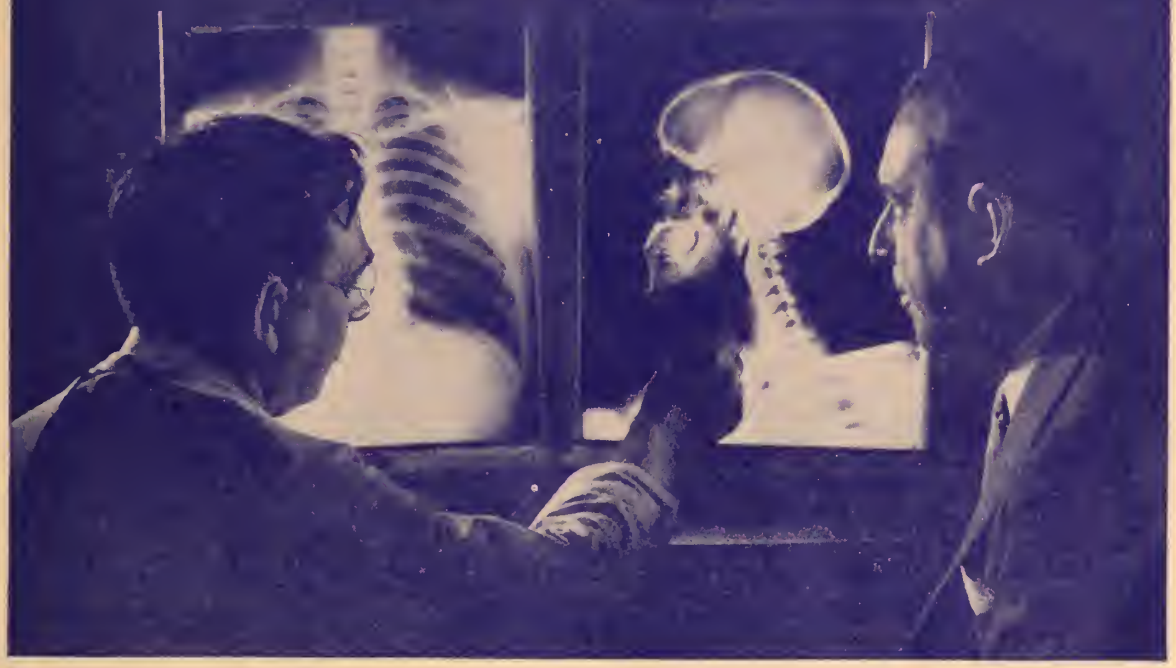

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Committee on Membership and Organization

E. Vincent Askey (Chairman)	Los Angeles	1938
Dewey R. Powell	Stockton	1939
G. Dan Delprat	San Francisco	1940

Secretary ex officio

Committee on Postgraduate Activities

F. E. Clough	San Bernardino	1938
F. F. Gundrum	Sacramento	1939
John C. Ruddock (Chairman)	Los Angeles	1940

Secretary ex officio

Committee on Publications

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Oscar Reiss	Los Angeles	1939
Ralph Eusden (Chairman)	Los Angeles	1940

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Editor ex officio

Committee on Public Policy and Legislation

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T. Henshaw Kelly	San Francisco	1939
E. T. Remmen	Glendale	1940

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President-elect ex officio

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Lemuel P. Adams	Oakland	1940

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Nelson J. Howard, Secretary of Section on General Surgery, ex officio
Frederick C. Warnshuis (Chairman), ex officio

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Frederick C. Warnshuis.....Secretary-Treasurer

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Cancer Commission

Orville Meland (Sec'y for Southern Section)	Los Angeles	1938
A. Herman Zeiler	Los Angeles	1938
Gertrude Moore	Oakland	1938
Otto H. Pflueger	San Francisco	1939
Henry J. Ullmann	Santa Barbara	1939
Clarence G. Toland	Los Angeles	1939
Charles A. Dukes (Chairman)	Oakland	1940
Lyell C. Kinney (Vice-Chairman)	San Diego	1940
Alson R. Kilgore (Secretary)	San Francisco	1940

Communications for the Cancer Commission should be addressed to the secretary, A. R. Kilgore, M. D., Room 2004, 450 Sutter Street, San Francisco.

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President, H. Gordon MacLean, 230 Grand Avenue, Oakland.

Secretary, Gertrude Moore, 2404 Broadway, Oakland.

Meeting, *Third Monday, 8:15 p. m., Hunter Hall, Oakland.*

Butte County Medical Society

President, John H. White, 315 Wall Street, Chico.

Secretary, J. O. Chiapella, 131 Broadway, Chico.

Meeting, *Second Thursday.*

Contra Costa County Medical Society

President, Clara H. Spalding, 331 Eighth Street, Richmond.

Secretary, Thomas J. Dozier, 202 G Street, Antioch.

Meeting, *Second Tuesday, 8 p. m.*

Fresno County Medical Society

President, J. M. Frawley, T. W. Patterson Building, Fresno.

Secretary, O. B. Doyle, Bank of America Building, Fresno.

Meeting, *First Tuesday, University-Sequoia Club, Fresno.*

Humboldt County Medical Society

President, Allan R. Watson, 350 E Street, Eureka.

Secretary, Lawrence A. Wing, Fifth and F Streets, Eureka.

Meeting, *First Thursday.*

Imperial County Medical Society

President, Floyd A. Burger, Box 193, El Centro.

Secretary, Merritt C. Canfield, 204 Professional Building, El Centro.

Meeting, *Third Tuesday, 7 p. m., Barbara Worth Hotel, El Centro.*

Kern County Medical Society

President, H. R. McAllister, Professional Building, Taft.

Secretary, C. S. Compton, 428 C Street, Bakersfield.

Meeting, *Third Thursday, 8:30 p. m.*

Kings County Medical Society

President, P. K. Edmunds, Corcoran.

Secretary, William A. Johnstone, Hanford.

Meeting, *Second Monday, 8 p.m., Legion Hall, Hanford.*

Lassen-Plumas-Modoc County Medical Society

President, C. I. Burnett, Susanville.

Secretary, Fred J. Davis, Jr., Westwood.

Meeting, *On Call.*

Los Angeles County Medical Association
1925 Wilshire Boulevard, Los Angeles

President, John P. Nuttall, 203 Professional Building, Santa Monica.

Secretary, George D. Maner, 1925 Wilshire Boulevard, Los Angeles.

Meetings, *First and Third Thursdays, 1925 Wilshire Boulevard, Los Angeles.*

Marin County Medical Society

President, Anne L. Brady, Albert Building, San Rafael.

Secretary, Carl W. Clark, 510 B Street, San Rafael.

Meeting, *Fourth Thursday, 6:30 p. m., Marin Golf and Country Club.*

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President, Thomas P. Hill, Lakeport.

Secretary, Charles A. Craig, Lakeport.

Meeting, *On Call.*

Merced County Medical Society

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Secretary, Fred O. Lien, Shaffer Building, Merced.

Meeting, *Third Thursday, Hotel Tioga, Merced.*

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President, Garth Parker, 8 East Alisal Street, Salinas

Secretary, Arthur L. Wessels, Salinas National Bank Building, Salinas.

Meeting, *First Thursday.*

Napa County Medical Society

President, Fred Heegler, Migliavacca Building, Napa.

Secretary, M. M. Booth, Bruck Building, St. Helena.

Meeting, *First Wednesday.*

Orange County Medical Society

President, Waldo S. Wehrly, 620 N. Main St., Santa Ana.

Secretary, Glenn Curtis, 323 So. Pomona Street, Brea.

Meeting, *First Tuesday, 8 p. m., Chapel of the Orange County Hospital, Orange.*

Placer County Medical Society

President, C. E. Lewis, 59 Lincoln Ave., Auburn.

Secretary, Robert A. Peers, Colfax.

Meeting, *At Call of President.*

Riverside County Medical Society

President, H. L. Ratliff, 3616 Main Street, Riverside.

Secretary, Thomas A. Card, 3616 Main Street, Riverside.

Meeting, *Second Monday, 8 p. m., Library, Riverside Community Hospital.*

Sacramento Society for Medical Improvement

President, Raymond M. Wallerius, 312 Physicians Building, Sacramento.

Secretary, Glenn E. Millar, 321 Physicians Building, Sacramento.

Meeting, *Third Tuesday, 8:30 p. m., Auditorium, Sacramento.*

San Benito County Medical Society

President, L. C. Hull, Hollister.

Secretary, L. E. Smith, Hollister.

Meeting, *At Call of President.*

San Bernardino County Medical Society

President, Delbert B. Williams, 401 North Eighth Street, Colton.

Secretary, A. E. Varden, Medico-Dental Building, San Bernardino.

Meeting, *First Tuesday, 8 p. m., San Bernardino County Charity Hospital.*

San Diego County Medical Society
Fourteenth Floor, Medico-Dental Building, 233 A Street, San Diego

President, S. J. McClendon, 2001 Fourth Street, San Diego.

Secretary, W. H. Newman, Medico-Dental Building, San Diego.

Meeting, *Second Tuesday, El Cortez Hotel.*

San Francisco County Medical Society
2180 Washington Street, San Francisco

President, T. Henshaw Kelly, 490 Post Street, San Francisco.

Secretary, Stanley H. Mentzer, 2180 Washington Street, San Francisco.

Meetings, *Every Tuesday, 8:15 p. m., 2180 Washington Street, San Francisco.*

San Joaquin County Medical Society

President, John S. Blinn, 1101 Medico-Dental Building, Stockton.

Secretary, George H. Rohrbacher, Medico-Dental Building, Stockton.

Meeting, *First Thursday, 8:15 p. m., Medico-Dental Club Rooms, Stockton.*

San Luis Obispo County Medical Society

President, Charles R. Kennedy, Bank of America Building, Paso Robles.

Secretary, E. D. Anderson, 1120 Morro Street, San Luis Obispo.

Meeting, *Third Saturday, 6:30 p. m., Mulholland's Grill, San Luis Obispo.*

San Mateo County Medical Society

President, Frank S. Gregory, 736 Main Street, Redwood City.

Secretary, J. Garwood Bridgman, 205 Third Avenue, San Mateo.

Meeting, *Fourth Wednesday, Benjamin Franklin Hotel, San Mateo.*

Santa Barbara County Medical Society

President, Irving Wills, 1421 State Building, Santa Barbara.

Secretary, William H. Eaton, 822 De la Guerra Terrace, Santa Barbara.

Meeting, *Second Monday, Cottage Hospital.*

Santa Clara County Medical Society

President, R. Stanley Kneeshaw, 404 Medico-Dental Building, San Jose.

Secretary, Leslie B. Magoon, Medico-Dental Building, San Jose.

Meeting, *Third Wednesday, 8 p. m., Medico-Dental Building, San Jose.*

Santa Cruz County Medical Society

President, A. N. Nittler, 36½ Pacific Avenue, Santa Cruz.

Secretary, Samuel B. Randall, Farmers and Merchants Bank Building, Santa Cruz.

Meeting, *Second Tuesday, 7:30 p. m., Hotel Rio del Mar, Aptos.*

Shasta County Medical Society

President, Oscar J. Hansen, 318 Yuba Street, Redding.

Secretary, Leslie J. Seeley, 1432 York Street, Redding.

Meeting, *Second Monday.*

Siskiyou County Medical Society

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Secretary, J. B. McGuire, Mt. Shasta City

Meeting, *Second Sunday.*

Solano County Medical Society

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Secretary, John W. Green, Box 539, Vallejo.

Meeting, *Second Tuesday, 8 p. m., Casa de Vallejo Hotel, Vallejo.*

Sonoma County Medical Society

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Secretary, C. M. Carlson, 534 B Street, Santa Rosa.

Meeting, *Second Thursday.*

Stanislaus County Medical Society

President, Marion C. Collins, Turlock.

Secretary, Edwin F. Hagedorn, Box 834, Modesto.

Meeting, *Second Friday.*

Tehama County Medical Society

President, Donald E. Thompson, Red Bluff.

Secretary, F. J. Bailey, Red Bluff.

Meeting, *At Call of President.*

Tulare County Medical Society

President, J. C. McClure, Lindsay.

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Meeting, *Sunday Evening once a month.*

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Secretary, A. A. Morrison, 625 Main Street, Santa Paula.

Meeting, *Second Tuesday, Ventura County Country Club.*

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Secretary, Ray E. Nichols, Woodland.

Meeting, *First Tuesday.*

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BOOK REVIEWS

Books received for review are placed in the Library of the California Medical Association, in its central office at San Francisco. Book reviews are written by the Association Secretary.

BOOKS RECEIVED

The Roentgenologist in Court. By Samuel Wright Donaldson, A. B., M. D., F. A. C. R., St. Joseph's Mercy Hospital, Ann Arbor. Cloth. Pp. 230. Price, $4 postpaid. Springfield, Illinois: Charles C. Thomas, 1937.

Biological and Clinical Chemistry. By Matthew Steel. Ph. D., Professor of Biochemistry in the Long Island College of Medicine, Brooklyn, New York. Cloth. Pp. 770, illustrated. Price, $8. Philadelphia: Lea & Febiger, 1937.

The Thinking Body. A Study of the Balancing Forces of Dynamic Man. By Mabel Elsworth Todd, New York, N. Y. Foreword by E. G. Brackett, M. D., Boston, Massachusetts. Cloth. Pp. 314, with 91 illustrations. Price, $4. New York: Paul B. Hoeber, Inc., 1937.

A Textbook of Medicine. By American Authors. Edited by Russell L. Cecil, A. B., M. D., Sc. D., Professor of Clinical Medicine, Cornell University Medical College; Associate Attending Physician, New York Hospital, New York City. Associate Editor for Diseases of the Nervous System: Foster Kennedy, M. D., F. R. S. E., Professor of Neurology, Cornell University Medical College; Director, Department of Neurology, Bellevue Hospital, New York City. Fourth Edition, Revised and Entirely Reset. Cloth. Pp. 1614, with 42 illustrations. Price, $9 net. Philadelphia: W. B. Saunders Company, 1937.

Materia Medica, Pharmacology, Therapeutics, and Prescription Writing. By Walter Arthur Bastedo, Ph. M., M. D., Sc. D., F. A. C. P., Consulting Physician, St. Luke's Hospital, New York City, St. Vincent's Hospital, Staten Island, and the Staten Island Hospital; President, United States Pharmacopeial Convention, 1930-1940; Member Revision Committee United States Pharmacopeia. Formerly Curator of the New York Botanical Garden, Attending Physician, City Hospital, New York, Instructor in Pharmacology and Therapeutics, and Assistant Clinical Professor of Medicine, Columbia University. Fourth Edition, reset. Cloth. Pp. 778, with 81 illustrations. Price, $6.50 net. Philadelphia: W. B. Saunders Company, 1937.

Synopsis of Genito-Urinary Diseases. By Austin I. Dodson, M. D., F. A. C. S., Richmond, Virginia, Professor of Genito-Urinary Surgery, Medical College of Virginia; Genito-Urinary Surgeon to the Hospital Division, Medical College of Virginia; Genito-Urinary Surgeon to Crippled Children's Hospital; Urologist to St. Elizabeth's Hospital;

(Continued on Page 15)

NEW MEDICAL BOOKS

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BOOKS RECEIVED

(Continued from Page 13)

Urologist to St. Luke's Hospital and McGuire Clinic. Second Edition. Cloth. Pp. 294, with 112 illustrations. Price, $3. St. Louis: The C. V. Mosby Company, 1937.

The Management of the Pneumonias. For Physicians and Medical Students. By Jesse G. M. Bullowa, B.A., M.D., Clinical Professor of Medicine, New York University College of Medicine. Visiting Physician and Director Littauer Pneumonia Research Fund, Harlem Hospital. Visiting Physician, Willard Parker Hospital. Cloth. Pp. 508, illustrated. Price, $8.50. New York: Oxford University Press, 1937.

The Business Side of Medical Practice. By Theodore Wiprud, Executive Secretary of the Medical Society of Milwaukee County; Lecturer in Medical Economics at the Marquette University School of Medicine. Cloth. Pp. 177, with 21 illustrations. Price, $2.50 net. Philadelphia: W. B. Saunders Company, 1937.

Functional Activities of the Pancreas and the Liver. A study of objective methods for the estimation of function levels in health and disease. By Charles W. McClure, M. D., Gastro-Enterologist to Fifth Medical Service, Boston City Hospital, Assistant Professor of Gastro-Enterology, Boston University School of Medicine. Special Chapters by Tage Christiansen, M. D., Resident Physician Medical Department, County Hospital of Copenhagen, Denmark, and the late Allan W. Rowe, Ph. D., Formerly Director of Research, Evans Memorial, Boston, Massachusetts. With a Foreword by Samuel Weiss, M. D., F. A. C. P., New York. Cloth. Pp. 318, with 66 illustrations. New York: Medical Authors' Publishing Company, 1937.

International Health Division. Annual Report, 1936, The Rockefeller Foundation. Paper. Pp. 278. New York: The Rockefeller Foundation, 1937.

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BOOK REVIEWS

Biological and Clinical Chemistry. By Matthew Steel, Ph.D., Long Island College of Medicine. Cloth. Pp. 770. Price, $8. Philadelphia: Lea & Febiger.

An excellent, well-arranged and inclusive text that will be most helpful to student and practitioner. The theoretical and practical features of biochemistry and biophysics are well blended with clinico-chemical methods and pathology. Clear in descriptive text, well arranged, suitably illustrated, and in accord with modern knowledge, this work is very acceptable.

The Roentgenologist in Court. By Samuel W. Donaldson, A. B., M. D., St. Joseph's Hospital, Ann Arbor, Michigan. Cloth. Pp. 230. Springfield, Illinois: C. C. Thomas Company.

An ordinary outline of legal proceedings, rules of evidence, citation of decisions and conduct for the expert on x-ray appearing as a witness. Contains some helpful suggestions for the novice.

Psychiatric Nursing. By William Sadler, M. D., Lena K. Sadler, M. D., and A. B. Kellogg, R. N. Cloth. Pp. 434. Price, $2.75. St. Louis: C. V. Mosby Company.

An excellent text and guide for the nurse and giving much that is useful to the practitioner. One of the better type nurse manuals and based on sound principles.

Prison Life Is Different. By James A. Johnston, Warden of Alcatraz Federal Prison; Formerly Warden of Folsom and San Quentin Prisons. Cloth. Pp. 337, with Eight illustrations. Boston: Houghton Mifflin Co. Price, $3.

Here is a book on crime, criminals, and prison life, written by an expert in prison administration. Warden Johnston's long experience in charge of Folsom and San Quentin prisons qualifies him to speak from personal first-hand knowledge and with authority.

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(Continued on Page 19)

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BOOK REVIEWS

(Cont'd from Page 17)

problems, as well as for his fearlessness and justice. That he should be chosen as warden of Alcatraz Penitentiary with its special difficulties in the handling of the nation's most hardened criminals, was no surprise to those who have known Warden Johnston's record.

"Prison Life Is Different" will appeal to a wide variety of readers. It will be of particular interest to every person wishing to understand human behavoir. To a large part of the population crime and criminals, their methods of operation, their reaction to the law and its penalties, are absorbing problems. And the book is filled with material to satisfy all such readers. Its pages abound with short well-written biographies of some of the most noted criminals in California history.

To those interested in prison reform, chapters dealing with efforts to improve not only the lot of the prisoner but also his physical, mental, and moral make-up will have a direct appeal. For these, such chapters, among others, as Fresh Air for Foul, Individualization in Treatment, Honor Convicts Build Highways, The Way Parole Works, outline some of the reforms and some of the methods of attack on prison problems inaugurated and carried out by Warden Johnston.

Some of the chapters have a particular interest for physicians. The building up of an adequate medical and surgical as well as a dental organization, under Doctors Stanley and Simonton, is described, and due credit is given to the many consultants, both doctors and dentists, who gave their time and experience in assisting the Warden and Doctor Stanley in their efforts to build up the physical man during his stay in prison.

Space prevents further comment on this timely absorbing and well-written volume. It is full of the wisdom of a man rich in experience, with a wide knowledge of human nature and of human frailty, of a man with a philosophy of kindness for the weak but with a well-defined sense of fairness and justice. The book must be read to be appreciated. The reviewer recommends it highly.

Clinical Urinalysis and Its Interpretation. By Robert A. Kilduffe, M. D., Pathologist, Atlantic City Hospital. Cloth. Pp. 428. Price, $4. Philadelphia: F. A. Davis Company.

Concise exposition of the subject. Useful in every laboratory. Dependable.

Synopsis on Genito-Urinary Diseases. By Austin I. Dodson, M. D., Medical College of Virginia. Cloth. Pp. 294. Price, $3. St. Louis: C. V. Mosby Company.

This second edition of a book presenting the essentials of genito-urinary diseases is well up to date. It adequately covers recognized principles in urology, and treatment is well outlined. It should prove to be a handy reference for the physician as well as the student.

The Management of the Pneumonias. By Jesse G. M. Bullowa, B. A., M. D., New York University College of Medicine. Cloth. Pp. 508. Price, $8.50. Oxford University Press.

Not because Doctor Bullowa was our guest speaker and discussed this subject at our annual session this year, but because of intrinsic merit of the text this volume can be declared to be outstanding. In the reviewer's opinion, it is the best discussion of the subject of pneumonia in all of our literature. No physician or surgeon should permit himself to be without this text. It should be acquired, read, studied, re-read, and referred to daily as long as any physician or surgeon has a case of pneumonia under his care.

This text is based upon Doctor Bullowa's studies in the Littauer Pneumonia Research Laboratory and Harlem

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(Continued from Preceding Page)

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TWENTY-FIVE YEARS AGO

(Continued from Text Page 360)

From an Article on "A Contribution to the Subject of Pellagra in California" by V. H. Podstata, M.D., and O. C. Willhite, M.D., Livermore.—The attention of the medical profession of California has already been drawn to the menace of pellagra. On December 14, 1909, Doctor Blue of the United States Public Health and Marine Hospital Service, then at San Francisco, reported one case of that disease and gave a general outline of what was then known of it. In April, 1910, at the fortieth annual meeting of the California State Society at Sacramento, Dr. W. A. Clark of San Leandro demonstrated one case of the disease. . . .

From an Article on "The Significance of Bacteria in Milk" by S. Levin, Ph.G., Ph.C. From the Laboratory of the Napa State Hospital, Napa, California.—The advanced step which has been taken by several public health institutions and the prominence which the propaganda for clean milk has gained recently, means much to the welfare of the general public. Milk, which constitutes one of the most important foods for the sick and convalescent, an article

(Continued on Page 22)

for sick as well as normal babies
Dextri-Maltose, Carbohydrate of Choice

In gastrointestinal disorders, "Dextri-maltose has been preferred to the other sugars as apparently less irritating."—*E. Cassie and U. Cox: The examination of the gastric contents in infants, with some considerations as to the value of lactic acid milk in infant feeding, Lancet, 2:322-325, August 14, 1926.*

"As to the kind of extra carbohydrate to be added, whether lactose or maltose, I believe dextri-maltose to be better in general in cases of fat indigestion (infantile atrophy)."—*C. H. Dunn: The Hygienic and Medical Treatment of Children, Southworth Co., Troy, New York, 1917, V. 1, p. 418.*

In the treatment of decomposition, "The period of repair may be shortened by giving suitable additional food; the best, probably, being buttermilk to which carefully regulated proportions of dextrin and maltose preparations or malt soup are added."—*E. Feer: Text-Book of Pediatrics, J. B. Lippincott Co., Phila., 1922, p. 284.*

In infantile atrophy, "The carbohydrate should be increased by gradual addition of dextrimaltose.

"Malt soup or dextrimaltose (Mead's) should be added in teaspoonful or more doses to each feeding until the point of carbohydrate tolerance is reached."—*L. Fischer: Diseases of Infancy and Childhood, F. A. Davis Co., Phila., 1925, V. 1, p. 285.*

In the case of a premature infant, "Dried milk with water was given, which later was changed to whole milk, 14 ounces; water, seven ounces, and dextri-maltose No. 1, one and one-half ounces. Seven feedings of three ounces each every three hours was given. The above feeding was retained. The infant gained eight ounces at the end of the first week."—*L. Fischer: Clinical notes in a series of premature infants, Arch. Pediat. 44:227-231, April, 1927.*

In the treatment of decomposition, "As a rule it is best to start with 2 to 2½ or 3 ounces of albumin milk to the pound weight in 24 hours; the sugar to be added is in the form of a maltose-dextrin mixture. One should never delay too long in adding this."—*C. G. Grulee: Infant Feeding, W. B. Saunders Co., Phila., 1922, p. 265.*

With reference to hypotrophy, "In mild cases, the addition of dextrimaltose instead of cane or milk sugar may be sufficient to obtain a gain in weight."—*C. Herrman: The treatment of nutritional disorders in artificially-fed infants, New York M. J. 114:158-160, August, 1921.*

In athrepsia, "The carbohydrates are usually added in a slowly fermentable form, such as the maltose and dextrin compounds, which are usually started by the addition of four grams per kilogram (1/15 ounce per pound) and increased until eight grams or more per kilogram (¼ ounce per pound) of body weight are added."—*J. H. Hess: Feeding and the Nutritional Disorders in Infancy and Childhood, F. A. Davis Co., Phila., 1928, p. 278.*

Concerning the treatment of marasmus, "When the stools have become smooth and salve-like, carbohydrate, in the form of dextrimaltose, may be gradually added up to the limit of tolerance."—*L. W. Hill: Practical Infant Feeding, W. B. Saunders Co., Phila., 1922, p. 281.*

In the feeding of prematures, "As soon as there is a hesitation in the gain in weight, dextrimaltose No. 1 is substituted for the dextrose, in the same amount in the mixture, with almost invariably a gain in weight."—*F. B. Jacobs: Relation of irradiated food substances and ergosterol versus cod liver oil in childhood nutrition, Pennsylvania M. J. 35:164-167, Dec., 1931.*

"A spasmophilic baby on bottle feeding should receive a limited amount of milk—a pint, or at the most 24 ounces in the 24 hours—to which cereal gruel and some form of sugar is added, preferably one of the malt dextrin preparations; also the early addition of other foods than milk to the baby's diet."—*M. Jampolis: Infantile spasmophilia, Interstate M. J. 25:652, Sept., 1918; abst. Arch. Pediat. 35:691, Nov., 1918.*

In cases of malnutrition and indigestion, "The appetite improves rapidly, and the stools soon become normal in appearance, if the sugars are intelligently prescribed. By this I refer to proper proportions of dextrin and maltose. When there is a tendency to looseness, I have used the preparation known as 'dextri-maltose,' for the extra carbohydrates; . . ."—*M. Ladd: Further experience with homogenized olive oil mixtures, Arch. Pediat., 33:501-512, July, 1916.*

In pyloric stenosis, "With low dextrose tolerance, a maltose dextrin preparation may be added in whole or in part. Even where the dextrose is well tolerated and gain in weight has ceased, impetus to the weight ontake may be given by the addition of a maltose dextrin preparation."—*D. J. Levy: Pyloric stenosis and pylorospasm of infancy with especial reference to medical treatment, J. Michigan St. M. S., 21:166-170, April, 1922.*

With reference to the treatment of diarrhea, "After several days, 2% to 3% of a maltose-dextrin preparation may be added (Dextri-Maltose). This is preferable to the easily fermentable lactose or cane sugar."—*F. Lust: The Treatment of Children's Diseases, J. B. Lippincott Co., Phila., 1930, p. 145.*

In dyspepsia, "The carbohydrate must not be allowed to exceed 3 per cent. Dextri-maltose is the most suitable sugar."

In the treatment of decomposition (atrophy, malnutrition, marasmus), ". . . when there has been obvious improvement, dextri-maltose is gradually increased from 3 to 5 per cent."—*B. Myers: The nutritional disturbances of infancy, Brit. M. J., 1:1079-1083, June 21, 1924.*

"The treatment of artificially fed children in the first of these groups consists in putting them on a low fat dietary, and giving them carbohydrate in the form of one of the less fermentable sugars—e.g., dextrimaltose."—*L. G. Parsons: Wasting disorders of early infancy, Lancet, 1:687-694, April 5, 1924.*

In the milder cases of inanition, "Regulation of this disturbed organismal balance is obtained by the addition of carbohydrates, while fat and casein are reduced. For this purpose dextrimaltose and flour are better than the ordinary sugars, since they are more slowly absorbed and have greater efficacy in their powers of controlling the flora in the large intestine."—*W. J. Pearson and W. G. Wyllie: Recent Advances in Diseases of Children, P. Blakiston's Son & Co., Phila., 1930, p. 116.*

In intestinal intoxication, "I have had more experience with dried skimmed milk in which 2 to 5 per cent dextrimaltose, barley or rice flour has been cooked, and the mixture subsequently fermented by lactic acid bacilli or soured with lactic acid, than with any other food except protein milk."—*G. F. Powers: A comprehensive plan of treatment for the so-called intestinal intoxication of infants, Am. J. Dis. Child., 32:232-257, August, 1926.*

Regarding the treatment of the marantic infant, "After the intolerance to sugar has been overcome a carbohydrate, preferably Dextri-maltose, may be added."—*C. S. Raue: Diseases of Children, Boericke & Tafel, Phila., 1922, p. 427.*

In spasmophilia, "Dextri maltose is the best sugar to use in these cases, in the proportion of 6 to 8 per cent."—*J. H. Reading, Jr.: Spasmophilia, Hahneman. Monthly, pp. 403-411, July, 1922.*

In the treatment of atrophy, "If the baby continues to improve, the next step in the treatment is to add to the milk one of the less fermentable carbobydrates, such as dextrimaltose; . . ."—*H. Thursfield and D. Paterson: Diseases of Children, William Wood & Co., 1929, p. 105.*

"I also find dextrin-maltose an excellent addition to albumin-milk when the first object of that food has been achieved and a gain in weight is desired; in this way I have succeeded in feeding albumin-milk far beyond the period usually advised, with highly gratifying results."—*F. L. Wachenheim: Infant-Feeding; Its Principles and Practice, Lea & Febiger, Phila., 1915, p. 158.*

"Dextri-maltose has been substituted for lactose not infrequently, when the tolerance for the latter continues low."—*J. H. West: Low fat, high starch evaporated milk feeding for the marasmic baby, Arch. Pediat. 48:189-193, March, 1931.*

"Malt sugar is indicated when others fail to produce a sufficient gain, or when malassimilation of fat is evident."—*O. H. Wilson: The role of carbohydrates in infant feeding, Southern M. J. 11:177, March, 1918; abst. Arch. Pediat. 35:447, July, 1918.*

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TWENTY-FIVE YEARS AGO

(Continued from Page 20)

which replaces the mother's feeding to the infant, a foodstuff which, because of its highly nutritious properties, enters almost every household in our communities, has not been given the consideration it deserves. . . .

Discussion on the Symposium on Poliomyelitis, Presented at the Meeting of the State Society in April and Accidentally Omitted From the October Journal.—Dr. W. V. Brem, Los Angeles: As the papers were being read, it occurred to me that my experience in Panama with the use of hexamethylenamin in cases of suppurative meningitis might be of interest. . . .

Dr. S. J. Hunkin, San Francisco: We have had seventy-six cases of poliomyelitis during the last year, and 20 per cent of them absolutely recovered—so it is a disease which tends often to recovery under proper surgical care. These were not abortive cases but cases of total paralysis regarding some particular portion of the body, yet 20 per cent made absolute recovery that will pass examination of a board of medical men. Whether the future will show some atrophy in these cases I cannot say . . .

Dr. Carl G. Wilson, Palo Alto: In the last two years I have had six cases of poliomyelitis. In regard to the treatment of these cases I used urotropin, 7½ grains, every two hours up to saturation—indicated by the bladder symptoms. One was cerebral, one cerebral bulbar, and the other four were all spinal types. Even before making a positive diagnosis I began early with the treatment. . . .

Dr. R. L. Wilbur, closing: Doctor Hunkin's discussion has shown us that there are many cases of this disease constantly occurring. The principal object in bringing my paper before you was to emphasize the importance of early diagnosis for the protection of the individual and the community and to encourage early rest and proper care in the

(Continued on Page 26)

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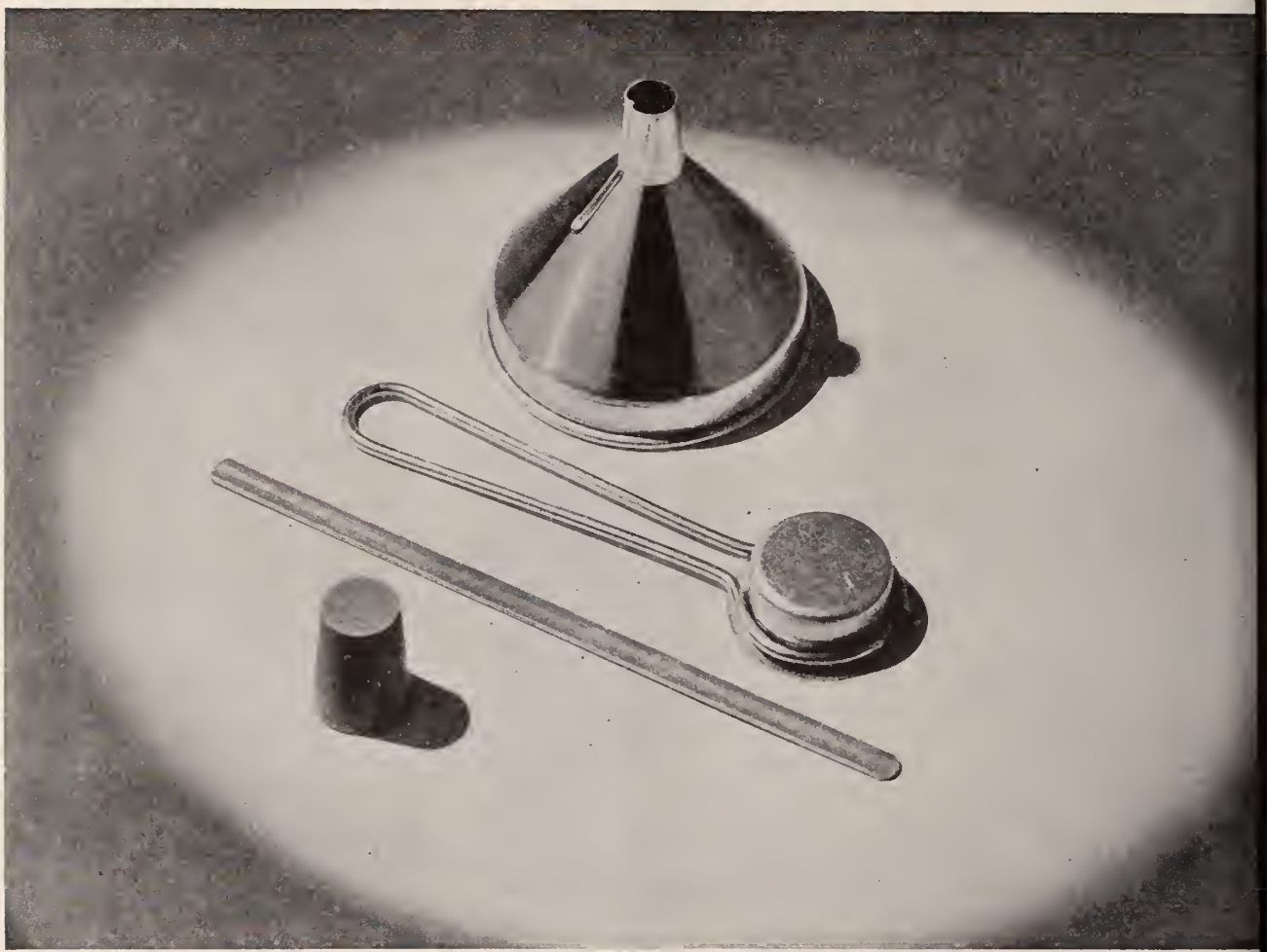

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TWENTY-FIVE YEARS AGO

(Continued from Page 22)

hope that as time goes on the consequences of the disease may be avoided in the individual and the spread of it controlled in the community.

Dr. J. T. Watkins, closing: I presaged my paper by saying that it must necessarily be incomplete. Still I tried to get in all I could on this subject in the time allotted to me. The members of the Alameda County Medical Society will remember that I read a paper before them on infantile paralysis and, not being limited for time, I made the same contention that the doctor has as to the importance of protecting the joints during and after an attack of infantile paralysis. Lange has emphasized that. . . .

What Is Membership Worth?—To the Editor of the State Journal: I wish to write and thank the State Medical Society for the manner in which it looked after the defense of the malpractice suit brought against me, and recently tried. The defense undertaken by the Society was thorough and the whole profession should realize the necessity of having the Society back of them in these malpractice cases which any physician is liable to have brought against him in the course of his practice. Very truly yours,

(————————)

BOARD OF MEDICAL EXAMINERS

(Continued from Text Page 360)

Jack H. Borland of the California court decisions, denying their suit to have the Act declared invalid." (Previous entries, October, 1935; January, 1936; March, 1937.)

"Chickens and eggs inside the stomach are more effective to cure stomach ills than those outside the stomach. This is what Albert Hawkins of the Hazel District found out, he told Police Judge Miller Chandler this morning, when he appeared to press charges that Dan and Mary John, Gypsies, who operate an allegedly phoney Temple of Occult Science on lower Main Street, that they defrauded him of $198. . . . Hawkins told of coming down Main Street one morning and as he passed the Gypsies' parlor of occultism, Mrs. John beckoned him for a fortune-telling session. Once inside, he recounted, he became fair prey for another Gypsy, the sister of the 'come on.' The Gypsy startled him with her psychic ability by telling him he was a sick man, a very sick man. She would make him a big, strong, healthy man once more. Whereupon she produced a live chicken and pressed it against his stomach. 'If the chicken dies, you will get well,' she told him. 'It will take all the sickness out of your stomach.' Suddenly the chicken curled up its toes and expired. Hawkins admitted he was impressed with the ritual. Nor was this all. The Gypsy asked him to bring an egg and a clean handkerchief. Hawkins lost no time in

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bringing an egg from a grocery store, also a handkerchief. He was told to spread the handkerchief on the floor and place the egg on it. 'Now, step on the egg and smash it,' the Gypsy commanded in solemn tone. He did. The Gypsy took up the handkerchief by the four corners and, pointing to the gooey mass, said that the evils that had caused his illness were right there in his handkerchief. Now came the catch. She asked Hawkins how much money he had. . . . He said he had some bank savings. 'Well, get all you can and bring it.' The more money he produced the more they could do with the 'spirits' to restore his health and vigor. He chose health, and drew $205 from his savings and gave them $178 of it. A week went by, but he got no relief, so he went back to the Gypsies and remonstrated. They threatened him with a 'hex.' They succeeded in frightening him, he said, and made him bring back $30 more for another 'treatment.' . . . Meantime, Acting Chief of Police Simpson got wind of the Gypsies' dealings with Hawkins, and also learned, he said, that they were leaving town. But before they had a chance to pull stakes, they were served with a warrant charging theft on a complaint signed by Hawkins. . . . After first pleading not guilty in court this morning, Dan and Mary John changed their pleas to guilty. McCarthy (Deputy District Attorney) recommended to the court that they be given suspended jail sentences and floated out of town. . . ." (Watsonville *Pajaronian*, October 2, 1937.) Just another proof that Barnum was right!

"Allan Mills, fifty-seven, of Paradise, is at liberty on $500 bond, while county authorities and T. P. Hunter, Special Agent of the State Board of Medical Examiners, continue their investigation of his 'magnatronic' device for diagnosis of all diseases. . . . A strange device which consisted of a battery radio set, with the names of all sorts of diseases on the dial, was being held in Oroville by H. R. McAtee, Special Investigator for the District Attorney's office. Three Chico women were taking treatments at the 'laboratories' when Undersheriff William Nisbet, McAtee,

(Continued on Next Page)

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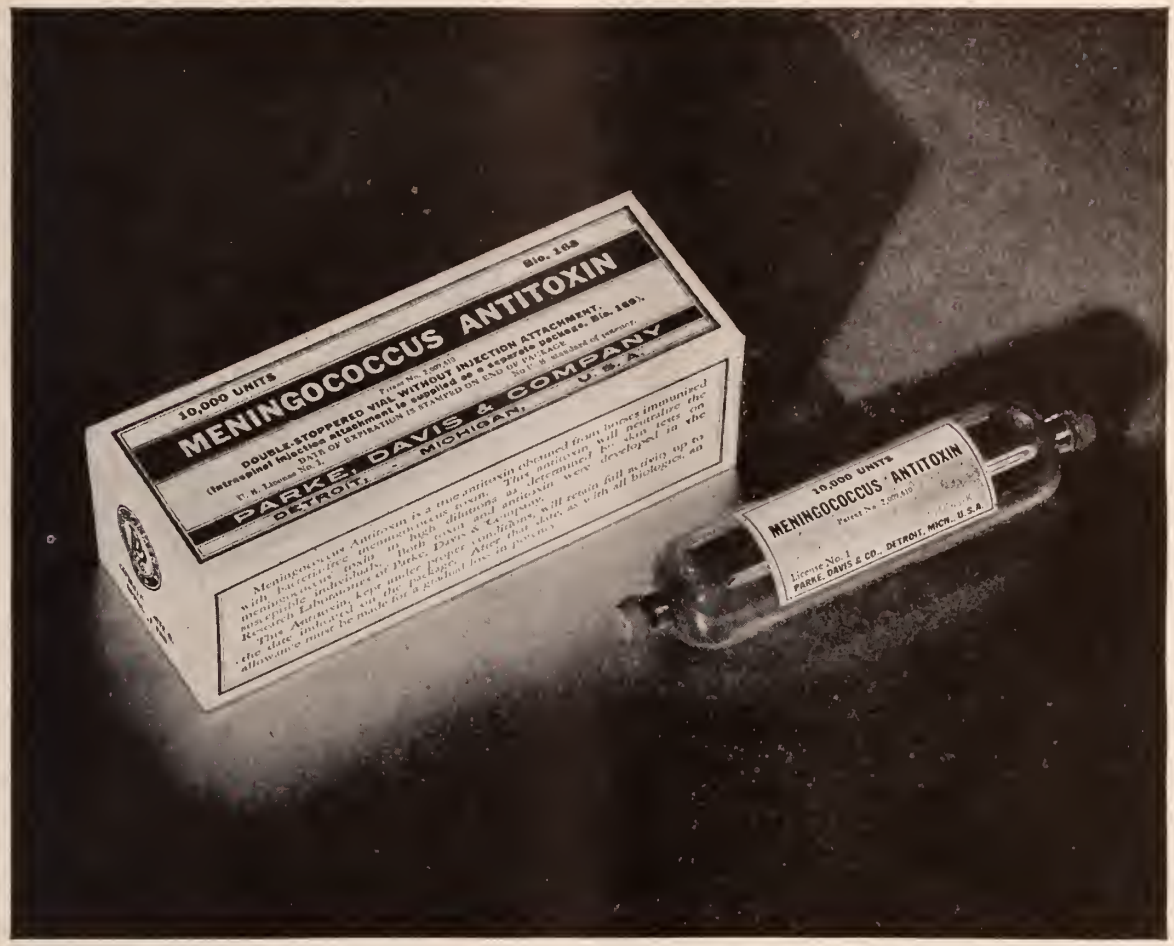
BOARD OF MEDICAL EXAMINERS

(Continued from Preceding Page)

and Constable J. Brown of Paradise raided. They were seated in comfortable easy chairs, holding a wooden terminal, to which were attached two wires. In another room Mills made the diagnosis. According to the explanation of officers, Mills touched the fingers of one hand to a piece of tin, while with the other he moved a stick with a wire attached up and down a long list of ailments. The name that registered through a glass plate was said to be the disease of the patient. Mills explained that the tin became sticky when the particular disease registered. Hunter took three treatments from the alleged 'quack' before giving him a marked $1 bill Friday. He was told he had an acute case of tuberculosis of the intestines and that if he was not treated immediately he would die in a short time. Officers confiscated records of the laboratory, which indicated that he had over five hundred patients in six months of operation. . . . McAtee declared that they have evidence that a woman who was being 'treated' for cancer, had died. 'She did not come to me soon enough,' was Mills' explanation. . . ." (Gridley *Herald*, October 5, 1937.) The violator file of the Board of Medical Examiners shows a news item printed in the Sacramento *Union*, September 6, 1925, relating that the Third District Court of Appeal denied Allan Mills, Chirothesian, a new trial and affirmed the judgment of the Superior Court, which imposed a fine of $200 or a jail sentence. This judgment may be found in 74 California Appellate, 353. (Previous entries, February, June, and December, 1925; March, April, and May, 1935.)

"Bail of $20,000, instead of $10,000, was demanded of Mrs. Sitton Noel, fifty, a nurse, formerly of 322 East Tenth Street, following Municipal Judge Oscar E. Houston's decision yesterday, after a preliminary hearing, to hold her

(Continued on Page 30)



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FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I hereby give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of $——— to be known as the ——— Gift, to be used and expended by said corporation for scientific, educational, or hospital purposes.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of $———, to be held as a fund, to be known as the [here insert name desired] Fund, the principal whereof shall from time to time be invested to the best advantage compatible with safety, and the income whereof shall be used and applied for scientific, educational, or hospital purposes.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR BEQUEST OF PERSONAL PROPERTY

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used and applied for scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California, to aid and further its scientific, educational, and hospital purposes, and to be known as the ——— Gift, the following described real property situate in the County of ———, State of California, and more particularly described as follows, to wit:

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used for and applied to the support and maintenance of scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

* These Bequest Forms were discussed editorially in CALIFORNIA AND WESTERN MEDICINE, for March, 1936, p. 145, and June, 1936, p. 460.

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BOARD OF MEDICAL EXAMINERS

(Continued from Page 28)

to answer to the Superior Court on a charge of performing a criminal operation. The bail was increased on recommendation of District Attorney Harry Keeler after he had informed the court that he had been told Mrs. Noel had made threats against the life of one of her alleged patients, who testified in the preliminary hearing, and that he feared the woman might make an attempt to take her own life. . . . Mrs. Eunice Potter, keeper of a rooming house at 322 East Tenth Street, where Mrs. Noel lived, reported finding the body of a baby in a glass jar in a hat box left there by Mrs. Noel. She also told of conversations with Mrs. Noel in which the latter assertedly admitted performing two operations." (Long Beach *Sun*, October 7, 1937.)

"Even prison fare looked good to Dr. Roy A. Cain, fifty-four, Oakland chiropractor. He had been on a fifteen-hour fast in a race against time. Going to jail for fifty days for a principle came later. In Hollywood, his home for seventeen years, on business, Doctor Cain found that only by driving straight through could he reach Berkeley in time for a 'date' with Judge Oliver Youngs on a reckless driving charge. He stopped only for gasoline, had no food. Just in time he reached the Berkeley City Hall to tell his story to Judge Youngs. He disagreed with Patrolman R. F. Henderson of the California Highway Patrol that he was intoxicated when he drove into the lake at the Berkeley Aquatic Park on September 11. He claimed he was forced off the road by a big blue car. Fined $100 with an alternative of fifty days in jail, the doctor did not hesitate. 'Pay $100 to a commonwealth that convicts me unjustly? Never!' he declared. . . . Reports of the Highway Patrol show, however, that Doctor Cain admitted having had a 'few drinks.' They also disclose how traffic was tied up on the East Shore Highway for more than an hour after Doctor Cain had waded from the lake, 'covered with mud

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and blood,' while his car was being extricated. . . ." (Oakland *Tribune*, September 30, 1937.) (Previous entries, December, 1929.)

"Dr. Eugene L. Settles of Venice today was sentenced to two years in prison by Federal Judge George Cosgrave for violation of the Federal Narcotic laws. Settles pleaded guilty two weeks ago to prescribing narcotics illegally. Judge Cosgrave recommended that Settles be transferred to the Government's farm at Lexington, Kentucky, for treatment." (Venice *Press*, October 1, 1937.) (Previous entries, December, 1931; June, 1933.)

"Acquittal of a charge on which he was tried twice, was granted to Dr. Samuel D. Burgeson, 929 Fetterly Street, this week. Doctor Burgeson was tried in connection with the death of Mrs. Pauline Wommack of Manhattan Beach last May 18, following an asserted illegal operation. He was acquitted last night in a jury verdict. The first jury disagreed last July." (Los Angeles *East Side Journal*, September 30, 1937.)

"A Pittsburg woman was dead today and an Oakland woman was being held for investigation in the Oakland City jail, while authorities of three counties carried on an intensive investigation into asserted illegal operations. The dead woman was Mrs. Rose Castellanos, thirty-three, of 337 East Second Street, Pittsburg, who died in the County Hospital, Stockton, last Friday morning. Held in jail at Oakland is Mrs. Trinidad Ayala, thirty-three, of 196 Third Street, Oakland, who, police claim, is suspected of performing an illegal operation on Mrs. Castellanos, causing her death. . . . An autopsy performed by Dr. E. Movitt of Stockton revealed, Sylvia, Deputy Coroner, announced, that death was from peritonitis, as an aftermath of an

(Continued in Back Advertising Section, Page 34)

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CALIFORNIA AND WESTERN MEDICINE

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EDITOR . . . . . GEORGE H. KRESS

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BUSINESS MANAGER . FREDERICK C. WARNSHUIS

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Responsibility for Statements and Conclusions in Original Articles.—Authors are responsible for all statements, conclusions and methods of presenting their subjects. These may or may not be in harmony with the views of the editorial staff. It is aimed to permit authors to have as wide latitude as the general policy of the Journal and the demands on its space may permit. The right to reduce or reject any article is always reserved.

Contributions—Exclusive Publication.—Articles are accepted for publication on condition that they are contributed solely to this Journal. New copy must be sent to the editorial office not later than the fifteenth day of the month preceding the date of publication.

Contributions—Length of Articles: Extra Costs.—Original articles should not exceed three and one-half pages in length. Authors who wish articles of greater length printed must pay extra costs involved. Illustrations in excess of amount allowed by the Council are also extra.

Leaflet Regarding Rules of Publication.—CALIFORNIA AND WESTERN MEDICINE has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

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EDITORIALS†

CALIFORNIA MEDICAL-ECONOMIC SURVEY: COMPLETED AT LAST!

"Formal Report on Factual Data," Off the Press.—Unless unforeseen circumstances arise, the "Formal Report on Factual Data" of the California Medical-Economic Survey, printed at the expense of the California Medical Association, should issue from the press and be in the mails about the same time as the Official Journal for November. By vote of the Council, a copy of the 224-page volume will be sent to every member of the California Medical Association, extra copies will be distributed to federal and other interested agencies, and there will be on sale a limited number of copies, at two dollars each.

* * *

An Unusual Experience.—No activity entered upon by the California Medical Association in recent years has required so much time and effort of the California Medical Association Council as has this path-breaking enterprise, which was first placed in charge of Association councilors by the House of Delegates at the annual session held at Riverside in May, 1934, and recommitted each year since; final instructions, as given by this year's delegates at Del Monte, being recorded as Item 4, on page 428, in the June, 1937 issue of CALIFORNIA AND WESTERN MEDICINE. The Del Monte resolutions relieved the "Committee of Five"—to whom, in 1934, the supervision of the survey had been intrusted—from further duty, and authorized the Council of the Association "to join with the State Board of Public Health, the sponsors of the survey, and bring it to publication and distribution, in accordance with the rules and the directions of the Works Progress Administration."

* * *

Survey-Director's Services Terminated.—The Survey Director, Paul A. Dodd., Ph.D., who had been employed by the Committee of Five to supervise the collection and compilation of statistics, was officially notified of the termination of his services, and steps were immediately taken to have the California State Board of Public Health proceed with the publication of the "Formal Report on Factual Data," as compiled from the complete, typewritten Final Report, which the Survey Director submitted on January 29 of the present year.

†Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column which follows.

New Complications: Appointment of a Special Committee on Publication.—At that stage, however, new difficulties arose owing to the fact that the California State Board of Public Health had no public moneys which could be used for printing the report; and, because of this, the project came back to the California Medical Association Council for consideration at its meeting on October 3 last, at which time—as will be seen in the Council minutes in this number, on page 337*—the responsibility of issuing the "Formal Report on Factual Data" was given over to a Special Committee on Publication, consisting of Doctors Howard Morrow, Edward M. Pallette, and George H. Kress.

* * *

Prompt Publication and Distribution Made. The Special Committee on Publication, whose members during the last several months had been studying the Survey Director's Final Report, prepared a Foreword and appended thereto eight Addenda, in which are outlined the financial audits, federal regulations and other matters; Addendum IX being the Survey Director's Preface, with acknowledgments to those who had aided in the work, and Addendum X outlining the working plan used in gathering and compiling the statistical data from which the 143 tables and fifty-six figures were developed. In addition, some forty pages of questionnaire and other forms are included in the Appendix; and these, with the tables and graphs, practically cover the factual data contained in the typewritten Final Report of the California Medical-Economic Survey.

* * *

The Survey Has Made a Heavy Draft on the Association's Reserve Funds.—Members of the California Medical Association will be surprised, in reading the audits in Addendum II, that between forty and fifty thousand dollars of the Association's funds were utilized in the study of medical-economic problems in California; a project originally brought into being by the Riverside House of Delegates in 1934 and annually reendorsed until brought to a close by this year's House at Del Monte in May, the Final Report of the Survey Director having been received by the Association only about three months previously.

* * *

Federal Government (FERA and WPA) and the California Medical Association Jointly Expended One Hundred Thousand Dollars on this Survey.—The California Medical-Economic Survey, therefore, should naturally be of considerable interest to members of the California Medical Association, in view of the fact that they have given so generously of their funds (more than forty thousand dollars) to aid in carrying on the study; and it is to be hoped that the factual information thus assembled will prove of sufficient interest and value to compensate, at least partially, for the heavy outlay of funds. The Federal Government's interest in the project is based on its expenditure of some $55,425.42 for wages of field agents, who were hired when so many persons were out of employment in the depression years of 1934-1935. The California Medical Association, for its part, undertook the study to obtain for its members, if possible, a more accurate picture of the incidence of sickness in California, and to learn whether existing social and other conditions here were such as militated against prompt recovery from illness and an early return to useful citizenship.

* * *

Criticisms of California Medical Association Not Justified.—Certain social workers and publications have evidenced unusual interest in the Survey, and several articles teeming with criticism of the California Medical Association have appeared in a number of California newspapers and Eastern journals. In regard to such articles, however (by whom made or from what sources inspired, it does not matter), the members of the California Medical Association need heed but little, for their record of generous giving and prompt coöperation, in accord with the regulations of federal authorities, have always been such that no fair-minded persons could legitimately demand more. It is true that the "Formal Report on Factual Data" of the California Medical-Economic Survey, comprising a volume of some 224 pages, contains only the Survey Director's Preface and Introduction, and not his interpretations and conclusions; but to have printed all the text in his Final Report would probably have covered more than 400 pages, and thus have added in its publication very considerably to the extra cost.

* * *

Medical Men and Women Able to Interpret and Draw Logical Conclusions on Matters Medical.—Members of the California Medical Association, because of their general academic and medical education and their very intimate knowledge of the citizens of California and the environments in which they live, should be able without great difficulty to make their own interpretations of a study (necessarily incomplete on many involved factors) of about "21,000 families, including almost 65,000 people in twenty-six representative counties of California." The rule in logic, not to draw general conclusions from special instances, should be kept in mind.

* * *

Study and Comment Invited.—If space permitted, the story of the Council's trials, since the Study was commenced and carried through under such lay supervision, would be worth perusal by members who have followed the "costs of medical care" investigations in recent years. One need only add that California's experience in this public-welfare, social-service, medical-care investigation is quite in line with similar projects inaugurated during recent years in other parts of the United States. However, now that our own enterprise has been brought to a close, let us study the contents of our formidable "Formal Report on Factual Data" of 224 pages. Readers are requested to send in any

* Page 337, Item 11.

observations of their own, suggested by the factual data in this report, to the central office of the Association, to acquaint the Council with their reactions.

California's medical profession, in the future as in the past, may be counted upon to render its full quota of aid, in coöperation with other agencies, to remedy existing defects in the care of sick and injured citizens.

POSTGRADUATE SUPPLEMENT TO THIS ISSUE

November Supplement Should Be Preserved for Reference.—Members of the California Medical Association will do well to preserve the Supplement of the current, November, number of California and Western Medicine, because of its presentation of a series of courses arranged by Doctors John C. Ruddock of Los Angeles, F. F. Gundrum of Sacramento, and F. E. Clough of San Bernardino, the Association's Standing Committee on Postgraduate Activities, as part of a proposed five-year program in postgraduate clinics and work which should soon become of great value both to the Association and the State.

* * *

The Aim of These Postgraduate Courses.—In this new activity, the major aim of the Association is to bring to members who do not live in the metropolitan centers the latest advances in modern medical science, with particular reference, however, to the work of physicians in general practice. To attain this end, the coöperation of faculty members of the four Class A medical schools of the State—in San Francisco, the University of California and Stanford, and in Los Angeles, the University of Southern California and the College of Medical Evangelists—was sought and has been generously given. The contract, therefore, is two-sided, in that county societies, whose members arrange for clinics and courses, shall do their part in bringing out an attendance commensurate with the sacrifice necessary to be made by lecturers in leaving their private work in order to serve interests both of colleagues and citizens.

In this new plan, some experience may be necessary before assurance can be given that the arrangements made will always work out to 100 per cent of efficiency; but with cordial coöperation on both sides, it should not be difficult to obtain positive results, satisfactory alike to teachers and students.

* * *

How a Specialty Organization Carries On Its Postgraduate Work.—We, ourselves, have just returned from the Chicago meeting of the American Academy of Ophthalmology and Otolaryngology, an organization that brings together annually some hundreds of specialists from all parts of the Union, and whose members, in classes of ten to twenty, spend two one-and-one-half-hour periods each morning (with a half-hour intermission), taking courses from fellow specialists who speak on matters in which they are particularly interested and competent. There one can see well-known authorities who have themselves given three or four courses during the session, during other periods, when not occupied with teaching, sitting as students under colleagues to whose special work they are attracted, and there, as fellow students, taking part in the discussions. The afternoons of the meeting were devoted to the general sessions, with papers and round-table discussions, or film presentations of operative procedures. These features, we believe, are worthy of mention, because the same urge that leads specialists to meet every year and exchange views should and does exist among physicians in general practice, to whom, unfortunately, the facilities extended by the larger specialty organizations have not everywhere in the past been made adequately available.

* * *

California Courses Will Be Given at Central Local Places.—The California Medical Association now proposes to offer opportunities for members who take an interest in the newer work in medicine and surgery, and who desire to check again also, in conference with fellow workers from other centers, on methods tried and true; and to do this, not by asking men and women busy in local practice to lose time by leaving home, but to make arrangements at the very doors of all who aspire to such study, to enable them to continue in touch with that spirit of progress and improvement that is so distinctive of present-day medicine.

* * *

Postgraduate Plans Should Be Discussed by the County Societies.—Members of the Association, therefore, are urged to scan the accompanying Supplement, and to bring the subject up for discussion at their next county society meeting. Suggestions will be gladly received by the State Association office, and all inquiries answered. With proper coöperation, the Postgraduate Study Plan can be made to become a great success in California, and also a valuable Association activity. To that end, the kindly interest and aid of members will be welcomed.

ANNUAL CONFERENCE OF STANDING COMMITTEES AND COUNTY SOCIETY SECRETARIES A SUCCESS

Standing Committees Authorized in 1929.—The present constitution and by-laws of the California Medical Association were adopted on May 8, 1929, at the Coronado annual session. In their original draft, as submitted two years before, and printed with the then-existing rules of organization in the August, 1927 issue of California and Western Medicine, provision was made for the first time for a group of "standing committees," the Committee on Revision believing this to be preferable to having varying numbers of miscellaneous special committees annually and haphazardly come into being through adoption of resolutions for such by the House of Delegates. The group of fourteen standing committees thus brought into existence in 1929 were delegated with functions sufficiently broad, it was expected—to cover practically all phases of activity in organized and scientific medicine.

Why the Plan Did Not Work Out in Practice.—On paper, the outline seemed sound, but in years since 1929, in spite of staggering provisions for each committee, whereby one member of the executive group of three would be elected each year, it was found that the plan did not work out well in practice. Analysis of the situation disclosed that the fault was probably due to the territorial bigness of the State of California, because of which it was not only difficult, but expensive, for committee members to meet between annual sessions. As a consequence, the important business outlined for each committee in the by-laws was only occasionally taken up in active fashion, necessitating reference to the Council, or to the later-authorized Committee on Public Relations, which came to be, in part, because the other standing committees were not functioning in proper manner.

* * *

Plan of a Midyear Meeting Authorized at Del Monte in May, 1937.—This year, at the annual session in Del Monte, the House of Delegates gave the Council authority to call together, at a central meeting place, not only the county society secretaries, but members of standing committees of the Association; and the first of such meetings was held in San Francisco on Saturday, October 2, in joint session with the Council. President-elect Irvin Abell of the American Medical Association was the guest speaker, and gave an inspiring address on the work of scientific and organized medicine.

* * *

This Year's Conference Measured Up to Expectations.—The new procedure fully demonstrated its worth in its initial meeting, and each year's repetition will undoubtedly add to its value, as the hold-over committee members become more experienced in carrying on the work intrusted to them in the by-laws.

In a state with an area so large as California, that half a dozen eastern commonwealths could be placed within its borders, and with a great number of citizens having widely diverse characteristics, it is important, if the standards of scientific medicine are to be properly upheld, that Association members who have been elected or appointed to official positions in the State Association or county units shall have ample opportunity to meet and contact one another, and so, through joint conference, come to conclusions on the best ways and means to promote the public health and the interests in California of scientific medicine.

That is precisely what the October 2 conference of the State Association officers and committees and county society secretaries accomplished, and it is to be hoped that committee members will maintain the interest once created and the good work there started, by for example, keeping up a correspondence on their respective duties, so that, for the 1938 annual session of the Association, the committee reports—to be printed in the Pre-Convention Bulletin—will give evidence of real progress. Through such united action and perhaps only by means of such spirited coöperation, much good may be realized.

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 336.

EDITORIAL COMMENT†

THE PINEAL BODY

Except for anatomical data regarding this structure, our knowledge is very meager. Most of what is purported to be known is nothing more than pure inference. When a system of endocrine glands was recognized, the pineal was included as a lesser light, though no *direct* evidence justified the inclusion. Certain tumors of the pineal were known to be associated with sexual precocity and hypertrichosis in male children. The fact that these tumors were essentially teratoid in type, thus differing considerably from the normal structure, appears not to have prevented the acceptance of the normal pineal as an endocrine gland.

If endocrine gland it is (and we can infer physiologic activity from the histologic appearance of the cells—commonly done with thyroid, breast, adrenal, endometrium, etc.), then activity persists at all ages, since it is not possible to distinguish with certainty one age group from another. Even the deposition of calcium is widely variable in amount and time of appearance. The calcium masses occur in immediate contact with the pineal cells, but there is no evidence of reaction to their presence. The situation of these deposits and their appearance is unlike calcium deposition elsewhere, where factors of tissue injury, necrosis, fibrosis, ischemia, or hyperparathyroidism are involved. It is conceivable that the chemical reactions of the pineal tissue are particularly suitable for the deposition of this substance. The presence of calcium in the pineal does not appear to influence the integrity of the adjacent cells, which look as capable of physiologic function as cells removed from such contact.

If normal pineal influences are as "vital" as the pineal tumor syndrome would suggest, removal of this structure in experimental animals should be followed by unmistakable effects on the sex organs and body development. This has not been the case. While there are some workers who claim effects of this sort after pinealectomy, the changes are slight and of questionable significance in the light of numerous reports to the contrary. Other workers using extracts of pineal tissue have claimed certain sex- and body-weight effects when given to several generations of offspring of treated animals; but other extracts similarly prepared have not been

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

active. The effect of multiple pineal tissue implants appears not to have been adequately tested.

Because cumulative effects have been claimed when administration of extract was continued through several generations, it was thought wise to create a deficiency by pinealectomy in the offspring of pinealectomized parents. This should produce a cumulative deficiency. The experiment was without positive results. Carefully controlled observations on growth and maturity failed to reveal a difference from the normal.

But what practical conclusion can be drawn for medical practitioners? Only this, that the endocrine nature of the pineal is far from proved, and that, assuming such a function, so little effect can be produced with extracts in one generation of experimental animals, where relatively large doses can be employed in relation to their size, that it is presumptuous and doubtless futile to attempt to bring about any desired change in humans by the administration of any known pineal preparation.

San Diego County General Hospital.

Howard A. Ball,
San Diego.

NUTRITIONAL FACTORS IN MALIGNANT GROWTHS

The dietary requirement for certain amino-acids essential to normal nutrition has long been established. It remained for Osborne and Mendel to distinguish those amino-acids essential for normal growth, from those required for maintenance.[1] Of the twenty-two known amino-acids which, in various proportions, go to make up the complex structure of the protein molecule, some eight or nine must be supplied to the organism in the diet; the remainder can be synthesized by the tissues from simpler nitrogenous compounds. Osborne and Mendel clearly demonstrated that, while lysin is a normal constituent of body proteins, its requirement for maintenance of the ordinary wear and tear of adult tissues is minimal. However, the conditions for rapid synthesis of new tissue protein incident to normal growth greatly increase the requirement for this particular amino-acid. In short, they found that if lysin in the diet of healthy growing rats was reduced to the low level required for maintenance of fully mature rats, growth ceased; whereas, when lysin was added to such diets, growth was resumed. Thus, lysin was distinguished as essentially a growth factor. It has since been shown that cystin plays a similar rôle in the diet.

With these facts established for normal growth the question arose whether malignant tumors, which are characterized by a rapid synthesis of new proteins, follow this same pattern. If the growth of neoplastic tissues can be retarded by restricting or eliminating the intake of these growth factors in the diets of the host, a new weapon would be available for controlling these abnormal growths. This problem was first outlined by the present writer in 1915.[2] As a preliminary to our investigation of this problem, a quantitative analysis was made of various types of malignant tumor tissue for their content in lysin and related amino-acids. It was found that the yields of lysin, arginin, and histidin are over 100 per cent greater than those obtained on hydrolysis of normal somadic tissue. Our paper concludes with the statement: "These results suggest a new approach to the cancer problem, especially as it relates to metabolism." At the time this work was carried out in 1915 no laboratory animals suitable for experimental work on this problem were available. In lieu of such desirable preliminary experiments on animals, we carried out limited experiments on human cancer patients. Gliadin, one of the proteins of wheat, having a very low lysin content, was used as the sole source of protein. Calorie and vitamin requirements were supplied by starch, butter, lettuce, orange and tomato juice. In spite of the seemingly favorable results in the few cases studied, this work had to be discontinued because of the lack of facilities for preparing gliadin in sufficient quantities. This work was not reported in detail. Of record is the following: "An effort has been made to feed certain human cancer cases on a diet free from these substances (hexone bases), with the hope that the cancer tissue might be starved out. Its needs for growth are probably proportional to the rapidity of its extension throughout the body."[3]

More recently, with the development of new strains of laboratory animals, particularly those showing spontaneous malignant tumors, interest in this phase of the nutrition of malignant tumors has been revived by the work of Courrier and Coste in France (1934)[4] and Voegtlin and Thompson,[5] and Voegtlin and Maver (1936)[6] in this country. Courrier and Coste fed rats carrying the transplanted Jensen sarcoma on a diet in which gliadin formed the chief source of protein. They reported a marked retardation of the tumor growth in rats fed on this diet, and attributed the inhibited growth to the low lysin content of the diet. Voegtlin and Maver have criticized this work on the grounds that they failed to prove a growth response by the addition of lysin to the diet following the period of retardation. Nevertheless, the animals on the stock diet showed rapid tumor growth, and this tumor growth was inhibited in animals on the gliadin diet. And gliadin is a protein low in the amino-acid lysin and has been shown to be adequate for maintenance of adult animal tissue. Voegtlin and Maver, using the Marsh strain of mice in which over 90 per cent of the females develop spontaneous mammary carcinoma, added the refinement to their technique of adding pure crystalline lysin to the diets following the period of retarded growth on the gliadin diet, and observed renewed growth, thus doubly proving that

1 Osborne, T. B., and Mendel, L. B.: J. Biol. Chem., 17:325, 1914; 25:1, 1916.

2 Kocher, R. A.: J. Biol. Chem., 22:295, 1915.

3 University of California Bulletin, Third Series, Vol. X, No. 6, p. 125, 1916.

4 Courier, R., and Coste, G.: Compt. rend. Soc. de biol., 115:631, 1934.

5 Voegtlin, Carl, and Thompson, J. W.: Pub. Health Rep., Vol. 51, No. 42, p. 1429, 1936.

6 Voegtlin, Carl, and Maver, M. E.: U. S. Pub. Health Rep., Vol. 51, No. 42, p. 1436, 1936.

lysin was the limiting factor. In subsequent experiments, Voegtlin, Johnson, and Thompson,[7] using the same strain of mice, found that the amino-acid cystin or its compounds, methionine and glutathione, when reduced to a low level in the diet, cause a retardation in tumor growth; when these are again added to the diet, growth continues at the previous rate.

From this work it may be concluded that certain amino-acids, as lysin and cystin, previously known to be necessary for normal growth in rats or mice, are likewise necessary for growth of malignant tissue in these animals. It may be assumed, on the basis of these experiments, as well as on the analyses of malignant tissues, that these amino-acids are required for the synthesis of new proteins, that they cannot be synthesized by the animal organism, nor, in the case of malignant neoplasms in mice, is body tissue broken down to supply this requirement. For the continuance of normal as well as abnormal growth in laboratory animals, these "growth amino-acids" must be supplied in the diet in sufficient amounts (greater than required for maintenance) to provide for new protein synthesis.

Whether this research with animal tumors will prove applicable to human cancer treatment it is too early to predict. Certainly, the diets so far used in the experiments reported on mice are not suitable for human consumption. This writer has recently arranged certain diets low in lysin, but adequate in other respects, which may prove useful for experimentation in certain selected cancer patients where other measures have failed. These diets have been tested out in normal subjects for sufficient periods to show that healthy nutrition, as well as nitrogen balance, can be maintained.* Only a statistical study over a period of years on a great many patients would prove adequate to the question of whether human malignancy could be favorably influenced by such a dietary regimen.

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SYNERGIC IMMUNITY

The demonstrated clinical success of antirabies vaccine and diphtheria antiserum in the closing years of the nineteenth century gave rise to the hope that similar methods of immunization would afford equal control of other infectious diseases. Subsequent clinical failure of so many other vaccines and antiserums did not completely destroy this hope. Failure was conceivably due to correctable errors in the preparation of corresponding antigens or antiserums. During recent years, therefore, improved technical methods have been sought by numerous research workers. Fractionation of complex bacterial proteins into active components and mechanical methods of obtaining undenatured bacterial proteins have led to encouraging results in experimental animals.

A second method of improving routine vaccine technique have been attempts to combine vaccine therapy, or serum therapy, with intravenously injected catalysers, coenzymes or tissue activators. The first important group of "catalysers" studied for their hoped-for addative immunological effects were certain metal salts. Walker and Ainley,[1] for example, found that intravenous injections of certain arsenicals would markedly increase specific agglutinin production in rabbits. Walbum,[2,3] reported similar stimulating effects following intravenous injection with manganese, nickel, cobalt or zinc salts. He found, for example, that intravenous injection of $MnCl_2$, following or accompanying routine doses of vaccines or antiserums, would actively or passively immunize rabbits against multilethal doses of the corresponding toxic or infectious agents. Control rabbits injected with the same vaccines or antiserums, but without the accompanying salt therapy, failed to develop an adequate immunity. In his hands, however, the immunity-stimulating effect of $MnCl_2$ is absolutely dependent upon dosage. Small doses and excessive doses are equally ineffective.

Combined metal-salt therapy and vaccine therapy, however, has not been endorsed by all other investigators for clinical adoption. Mackie[4] and his coworkers of the University of Edinburgh, for instance, found that while an occasional rabbit injected with the recommended dose of beryllium chlorid showed a twentyfold increase in specific antibody production, most of his rabbits showed negligible antibody changes. In some rabbits there was even a marked decrease in antibody titer or production, from which recovery did not take place. Hektoen and Corper[5] showed that part of this variability may be due to variations in the time of injection of the metal salts. "Thorium-X," for example, injected in the early stages of specific precipitin production, markedly decreases antibody yield. Injected at a later stage, however, this substance is without demonstrable antibody effects.

A more promising method of increasing specific antibody yield was afterward discovered by Doctor Burky[6] of Johns Hopkins University. It is almost impossible[7] to produce specific precipitins for lens proteins in rabbits by attempted active immunization against lens substance. Burky found that the apparently nonantigenic lens substance can be changed to an effective antigen by combining it with staphylococcus filtrate, or with certain other bacterial toxins. Relatively nonantigenic pollen proteins can be rendered actively antigenic by such combination. Rabbits may be even sensitized to their own muscle proteins by such synergic techniques.

7 Voegtlin, Carl, and Johnson, J. M.: U. S. Pub. Health Rep., Vol. 51, No. 49, p. 1689, 1936.

* Reference to article not yet published.

1 Walker: Med. Res. Counc. Ser., No. 55. London, 1920.

2 Walbum, L. E.: Det. kgl. Danske Videmk. Selskab. Biol. Medd., III, 6, 1921. C. rend de la Soc. Biol., 80:761, 1921.

3 Walbum, L. E.: Ztschr. f. Immunitätsforsch, 49:538, 1926.

4 Mackie, T. J.: J. Hyg., 24:176, 1925.

5 Hektoen, L., and Corper, H. J.: J. Infect. Dis., 26:330, 1920.

6 Burky, E. L.: J. Allergy, 5:466, 1934.

7 Braun, R.: Arch. f. Augenh., 105:122, 1931;106:99, 1932.

Doctor Burky's synergic immunity has been studied in greater detail by Doctors Swift and Schultz[8] of the Rockefeller Institute. The New York investigators found that the synergic effect of staphylococcus toxin could be demonstrated without mixing nonantigenic proteins with the toxin. Protein and toxin could be injected separately into different veins, or into the same vein with several hours' interval between injections, and still lead to the production of high-titer antiprotein precipitins. To explain this synergic effect, they postulate that the intravenously injected toxin exerts a stimulating action on the antibody-producing tissues, a "synergic conditioning" of the specific immunity mechanism. A somewhat more complex theory is proposed by Picado,[9] who has studied a wide range of other synergic phenomena. According to his theory the increased antibody titer caused by intravenously injected toxin is not due to a stimulation of normal antibody production, but to a chemical perversion or transformation ("deviation hiérarcique") of preëxisting humoral factor. His synergic antibodies, therefore, are abnormal serological products of questionable clinical value.

The synergic phenomena of greatest theoretical interest at the present time, however, is the conceived possibility of stimulating the production of natural antibody by intravenous injections with certain normal tissue stimulants or activities, such as vitamins and hormones. Encouraging results have been reported. Jusatz,[10] for example, alleges that if 100 milligrams of cevitamic acid is injected intravenously into a rabbit, this natural vitamin will increase specific precipitin production tenfold. This vitamin is equally effective if mixed with routine vaccines (*e. g.,* horse protein). Doctors Steinbach and Klein[11] of Columbia University report that daily intravenous injections of pregnancy hormone ("antuitrin S") favors the development of an effective immunity in tuberculous rabbits. In their hands the severity of an experimental tuberculous infection is reduced fully two-thirds by this hormone. Complete cures, however, have not yet been reported by them.

Broadening of the field of vaccine therapy and serum therapy to include the adjuvant immunizing powers of vitamins and hormones, is conceivably the most promising advance in immunological technique of recent years. Unfortunately, it is almost inevitable that the new plausibilities thus suggested will be followed by commercial exploitation. Clinicians should remember in this connection the exploded plausibilities of "leukocytic extract" and "bacteriophage" therapy.

Box 51.

W. H. Manwaring,
Stanford University.

8 Swift, H. F., and Schultz, M. P.: J. Exp. Med., 63:703-725, 1936.

9 Picado, C.: Ann. Inst. Pasteur, 56:186, 1936.

10 Jusatz, H. L.: Ztschr. f. Immunitätsforsch., 88:472-483, 1936.

11 Steinbach, M. M., and Klein, S. J.: J. Exp. Med., 65:205, 1937.

CESAREAN SECTION

Why are so many cesarean sections being done? Is it because the indications for cesarean sections have changed? Are women different today from what they were one hundred years ago? Is there no mortality with laparotrachelotomy?

The answer is, no. The indications for cesarean section have not changed. Cesarean section should be performed for disproportion between fetus and pelvis; contracted pelvis, previous cesarean section and, in some instances, for placenta previae and toxemias. However, the number of cesarean sections that are being performed without proper indications is really appalling. Bell, in his survey of maternal mortality for the Bay County region, has shown that in some hospitals the incidence was as high as 17 per cent, and mortality rate in some instances 12 per cent.

Thus, we see that cesarean section certainly carries a mortality rate, and one should wait for proper indications before doing the same. Of course one will say that if you wait too long your case is infected and then your mortality rate goes up.

From statistical study and our own experience we find that the death rate increases one per cent with each hour in labor. These women die as a rule from wound infection, peritonitis, and hemorrhage. Thus, one sees that the ideal time to operate is early in labor, but only where indications are justifiable. The operation best suited is the low cervical cesarean section. The majority of cases of contracted pelvis fall into this category. But if we have cases that are potentially infected, in which a favorable outlook for mother and child seems hazardous by the vaginal or intraperitoneal route, then one should perform the extraperitoneal or Latzko cesarean. However, this operation is only indicated in patients that have been in labor a long time, and where the lower uterine segment is well developed. One, therefore, can give a patient a test of labor with impunity and, if necessity arises, do the Latzko operation.

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CARCINOMA OF THE LUNG

Primary carcinoma of the lung occurs more frequently than any of us suspect. This disease at present appears in one per cent of all autopsies and makes up eight per cent of all cancer. The fifth and sixth decades are most vulnerable, the average age being fifty-one. In general, men are affected more often than women, the ratio being about 3.5 : 1.

The usual symptoms of carcinoma of the lung are cough, loss of weight, pain in the chest, and hemoptysis. When the growth occurs in a major bronchus, atelectasis of the distal lung soon ensues, due to the blocking of the air passage by the tumor. Infection frequently occurs in the atelectatic lung,

with a resultant bronchiectatic or abscess formation. Treatment in such a case often is directed toward the eradication of a chronic lung disorder, and the patient is relegated to a sanatorium without recognition of the true underlying pathology.

The bronchoscope and roentgen rays are our two most valuable diagnostic aids. The bronchoscope will detect over 75 per cent of these tumors and, even if the tumor is not visible, there are contributory findings suggestive of tumor, such as displacement of the trachea or narrowing of its lumen, widening of the carina, or a definite stiffness and induration of this region, which is readily recognizable to the experienced bronchoscopist.

Neoplasms occurring in an organ as richly supplied with blood and lymph channels as the lung would be expected to metastasize early, and unfortunately such is the case in the tumor under discussion. Metastases are found most frequently in the liver, brain, and adrenals.

Successful treatment, therefore, depends upon early diagnosis. The latter can only be made if the lesion is constantly in the examiner's mind. A good working principle, it seems to me, in a patient past forty years of age presenting the symptoms of cough and pain in the chest, and often hemoptysis, is that this patient has carcinoma of the lung, until the diagnosis is proved to be otherwise.

Thoracic surgery has today advanced to the point where removal of a single lobe or even all of one lung is not a forbidding procedure because of the high operative mortality. If the operation can be carried out upon a suitable operative risk, the chances of recovery are excellent. Past experience in the treatment of unilateral pulmonary tuberculosis by total thoracoplasty has shown us how efficiently a single lung can satisfy the respiratory needs of the individual.

Roentgen therapy is as important in the treatment of carcinoma of the lung as the surgical removal of the tumor. Those cases presenting a picture of infection in the lung due to the blocking of the tumor will be greatly improved by roentgen treatment. The bronchus will open up following irradiation, improved drainage of the diseased lung results, and a marked general improvement in the patient is observed. The roentgen therapy can be delivered both by deep radiation and the intrabronchial application of so-called radium bombs. It is not an uncommon observation to see a complete disappearance of the lung tumor following radiation. We have also observed at postmortem examination a complete absence of any cancer in a lung which has been irradiated, and from which a positive biopsy had been obtained before the roentgen treatment.

Carcinoma of the lung must be kept alive in the doctor's mind, because this condition is not uncommon. An early diagnosis must be made if therapy is to be efficacious. Surgery and the roentgen ray are satisfactory therapeutic agents when employed early in the disease.

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ORIGINAL ARTICLES

PSEUDOBILIARY DYSKINESIA*

By Stanley H. Mentzer, M.D.
San Francisco

Discussion *by Donald C. Collins, M.D., Los Angeles; Bert S. Thomas, M.D., Sacramento.*

THOUGH biliary dyskinesia is a relatively new clinical entity, it has become the most actively discussed subject in biliary tract disease. This is because of the work of Kitakoji, Shi, McGowan, Butsch and Walters, Schrager and Ivy, and Ivy and Sandblom, who have shown that the time-honored methods of alleviating biliary colic are not satisfactory in some cases. The administration of morphin for the relief of pain of biliary origin increases, rather than decreases such pain if it arises from choledochal spasm. Inasmuch as gallstone colic and choledochal spasm simulate one another so closely clinically that they may not be distinguishable, much interest has been aroused by this new work.

COMMON-DUCT PRESSURE

The pressure in the common duct varies considerably, being almost zero when the sphincter is open and 300 millimeters or more when it is in spasm. Following the hypodermic administration of one-sixth of morphin, McGowan, Butsch, and Walters found that, within seven minutes, the intraductal pressure rose to 320 millimeters and maintained this pressure for fifteen minutes. It then fell to 140 millimeters, where it remained for two hours. Pain was usually felt during this period, but the pain could be rapidly relieved and the pressure made to fall within a few moments by the inhalation of amyl nitrite or the administration of glyceryl trinitrate (nitroglycerin) orally.

ANATOMIC AND PHYSIOLOGIC CONSIDERATIONS

The explanation for these phenomena dates back to the early work of Glisson, Gage, Oddi, Hendrickson, Theile and Beale, and the more recent work of Mann and Giordano, who showed that smooth muscle fibers are arranged in a definite sphincter-like arrangement about the terminal end of the common duct. DuBois and Hunt demonstrated these fibers most distinctly in the opossum, and Boyden has shown that in man these constricting fibers may be above as well as below the ampulla of Vater.

Although in the past there has been much controversy over the manner of insertion of the common duct into the duodenum and the arrangement of the muscle fibers constituting the sphincter of Oddi, recent work has amply verified the anatomical studies and the theories of three hundred years ago. In brief, these may be reviewed as follows: the common duct is composed mainly of noncontractile elements, its bulk being made up of elastic tissue with only an occasional and irregu-

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Read before the General Surgery Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2-6, 1937.

larly placed smooth muscle fiber. Near the terminal end of the choledochus, an ampulla is present in which there are some circular muscle fibers, but the major arrangement is one of longitudinal muscle bundles which exert a forward and backward movement. It is these fibers which are responsible for the many contradictions in experimental work, substantiating and denying peristaltic movements of the choledochus. Potter and Mann showed that peristaltic movements could be obtained on kymographic records, and Puestow demonstrated the intermittent ejection of bile from the orifice of the sphincter. Furthermore, the sphincter has been visible in a widely opened state, yet no bile exuded from the common duct. These seeming contradictions are explained by recent interpretations of previously described anatomical facts in that the circular fibers above the ampulla are adequate to withstand some of the intraductal pressure. The propulson of the papilla into the duodenum and the peristaltic-like movements that occur are due to the intermittent action of the longitudinal muscle fibers in the ampulla.

The circular muscle fibers in the terminal end of the papilla may act independently of the muscle fibers of the ampulla. They are the fibers that Oddi best described in 1887. In man these fibers are able to withstand the secretory pressure of the liver, 300 millimeters of water and, in addition, moderate contractile powers of the gall bladder. In animals, however, they are sometimes meager and often absent. The combined circulatory fibers above and below the ampulla function in relative unison to provide a competent sphincter in man and in some animals.

RECENT STUDIES

Although these anatomical facts are substantiated by the most recent work, physiologists are not in accord as to the physiological action of the sphincter. It is agreed that the sphincter can open and close, but the stimuli necessary for these functions are not satisfactorily determined. The sympathetics relax the sphincter and the parasympathetics cause spasm. For this reason atropin releases the tonus and pilocarpin may increase it. But hormonal action of the secretin-cholecystokinin mixture also causes spasm of the sphincter. Furthermore, psychic phenomena influence the sphincter as Puestow has shown, the open sphincter of the dog suddenly closing and preventing the flow of bile for minutes to even hours when a stranger enters the room. Nanu-Muscel and Pavel maintain that fright can cause sufficient spasm to produce jaundice, and they cite several laparotomies with negative findings in jaundiced patients as evidence.

It is quite certain that active respirations, muscular activity and duodenal contractions permit spurts of bile to pass through the sphincter, and it seems definitely proved that duodenitis, gastritis, distention of the stomach, and starvation increase the tonus of the sphincter. Inflammations and mechanical irritations definitely affect the sphincter. Deissler and Higgins have shown that anaphylactic reactions cause a spasm of the circular muscle fibers. Acids increase the tone of the sphincter and alkalies sometimes release it. Pribram ventured to postulate that cold drinks could provoke a spasm of the sphincter.

There are conflicts in the data, both from the experimental laboratories and from clinical observations, which need clarification before we can adequately interpret the activities of the sphincter. Ivy and Sandblom reported nineteen patients who had pain in the epigastrium ten minutes after secretin-cholecystokinin had been given intravenously. The administration of magnesium sulphate via a duodenal tube relieved the distress and caused the appearance of dark bile. Lyon and his students indorse these observations. Other workers were unable to note any effect from magnesium sulphate even when it was applied directly to the papilla in open-window experiments. Similar contradictions appear in the use of drugs for provoking or releasing spasm of the sphincter, and proteins, fats, and carbohydrates have been accused of causing spasm as well as releasing it.

Unanimity is not present as to the pressures necessary to open the closed sphincter. Some authors maintain that pressures of 125 millimeters of water in the common duct caused the sphincter to open, while others find that 300 millimeters or more may be necessary. These contradictions appear to be due to the use of animals in experimental studies and to the use of diseased structures when human studies are made. It is not reasonably possible to derive information in any other way, but these very hindrances are responsible for much of the conflicting data.

BILIARY DUCT SPASM

Clinical diagnoses of biliary duct spasm have been made without an adequate foundation on which to judge the normal. It is presumed that spasm of the sphincter causes distress. In Schrager and Ivy's work, the dog manifested symptoms of distress when pressures of 70 millimeters of water were exerted in the common duct. Yet the sphincter of Oddi can withstand pressures five times as great, and even the secretory pressure of the liver may be more than three times as great. Under normal conditions, pressures greater than 70 millimeters of water are present. Butsch, McGowan, and Walters noted that pain was complained of when the intraductal pressure rose to 200 or 300 millimeters of water after morphin administrations; but the intraductal pressure may be raised twice as high in some patients without causing distress.

Many instances are cited in the literature of "spasm" of the sphincter when no fluid passes out of the common duct for fifteen minutes, or shorter intervals. Yet Puestow showed that no bile might flow from the sphincter for much longer periods under normal circumstances. We obviously have no standard for normalcy, and until such can be established we should be hesitant about applying diagnoses of spasm of the sphincter of Oddi.

More pertinent, however, is the problem connected with the diagnosis of spasm when spasm is frankly evident. How shall the diagnosis be expressed? This subject was introduced to clinical medicine in 1922, when John Berg stated that functional disturbances could produce stasis in the bile

ducts. He noted hypertrophy of the muscle at the terminal end of the common duct, and he ascribed the stasis to it. Aschoff and Bacmeister had suggested that sphincter spasm might produce stasis of bile in the gall bladder and be responsible for the formation of the pure cholesterol stone. Westphal, in 1923, utilized these conceptions in relation to both the gall bladder and common duct, and named this new entity biliary dyskinesia, postulating that it was a functional spasm occurring in the absence of organic disease. Pribram expressed the functional nature of biliary dyskinesia in a precise way when he said that the sphincter of Oddi has an inclination for spasm if the patient is constitutionally inclined to spasms generally. The original conception of Westphal included descriptions of atonic and hypertonic muscle tissue in the gall bladder as well as the common duct, but the practical residuum of his thesis has been the consideration of hypertonic activity of the choledochal sphincter.

Many others had proffered the belief, and even proof, that the sphincter of Oddi could become spastic, Oddi in 1887 and Meltzer in 1917 making the major contributions. But these writers described spasm secondary to organic disease of the bile ducts or gall bladder. An abundance of evidence has accumulated which proves that the choledochal sphincter may react spastically secondary to organic disease. There is also substantial proof that the sphincter may become spastic under certain emotional and functional states. The problem clinically is to distinguish the spasms of functional origin from those secondary to organic disease.

PRESENT STATUS OF BILIARY DYSKINESIA

Until recently the medical world has been slow to accept biliary dyskinesia as an entity. We are now, however, in the midst of a wave of enthusiasm which has swung the pendulum of acceptance to unwarranted degrees. As an illustration, the literature relative to the incidence of stones in the common duct, in association with stones in the gall bladder, shows, as Bonn has pointed out, that each fifth case, at least, of cholelithiasis is accompanied by choledocholithiasis. Yet how often is the common duct explored when the gall bladder is removed for stones? In a few large clinics the common duct is opened in 20 to 30 per cent of the cases; in average practice, Bonn ventures that only a tenth or a twentieth of the common ducts are explored. Does it not seem likely that some of the cases of "biliary dyskinesia" are in reality overlooked stones, if we judge by the incidence of the two lesions? No inclusion is made in this hypothetical question of the incidence of cholangitis, stricture, intraductal or extraductal tumor obstructions, or duodenitis. If these were also considered, the incidence of biliary dyskinesia should be even less. We have no facts upon which to base the incidence of biliary dyskinesia. But of forty-odd cases reported in the literature to date, thirty-two are not true dyskinesias.

COMMENT

Since 1903, when Kruckenberg cited his case of "gall-stone colic" in a patient who had a normal biliary apparatus, surgeons have repeatedly reported instances of colic, qualitative food distress and belching in patients who have no demonstrable evidence of gross biliary tract disease. Even with minor grades of inflammatory change, the clinical syndrome typical of biliary tract disorders has been frequently elicited. The mechanism of these disturbances is not understood, and some writers ascribe the symptomatology to functional spasms of the sphincter of Oddi. Likewise, the metabolic disturbances in the gall bladder have been characterized by colic and indigestion in the absence of stone. Judd and Mentzer, in 1926, showed in a study of one thousand patients who had cholesterosis of the gall bladder, half of whom had gallstones, that colics were almost as frequent in the stone-free as in the stone cases. Yet cholecystectomy completely relieved many of these patients. The mechanism of relief is not known, but as many of the patients were given morphin before operation it seems possible, in retrospect, that dyskinesia was the basis for the distress. The fact that sphincteric action is lost temporarily after removal of the gall bladder also lends support to this possibility.

Visual proof of spasm of the choledochal sphincter has been shown by choledochography after tube drainage of the common duct. The injection of opaque substances (brominol, lipiodol, or hippuran) into the bile ducts through a T-tube has shown retentions of these opaque fluids at the sphincter for minutes, hours, and even days. Almost all such observations have been made in patients who had organic disease of the biliary apparatus. I have injected the common duct with a needle technique while operating for other intra-abdominal lesions, and have noted retentions for hours when infiltration novocain anesthesia alone has been used.

CONFUSING NOMENCLATURE

It is unfortunate that the term "biliary dyskinesia" has been applied to cases in which spasm of the sphincter was secondary to choledocholithiasis, cholelithiasis, cholangitis, stenosis, mechanical obstructions by blood clot, mucus, biliary sand, parasites, sphincteritis, and duodenitis. The degree to which spasm may be induced secondarily was shown by the experimental work of Crain and Walsh. The emptying time of the gall bladder of dogs is normally one to two hours, after a fat meal, but this was increased to four to six hours when duodenitis was present. Strauss recorded twenty-two instances of dilatation of the extrahepatic bile ducts in humans at operation, some with cholangitis, but with no evidence of an obstructive nature other than duodenitis. Small tumors of the bile ducts are the most difficult of all to differentiate from sphincterismus. The obvious impossibility of delineating many of these lesions, even at the operating table, should make us hesitant to apply a diagnosis of biliary dyskinesia clinically.

BILIARY DYSKINESIA AS A CLINICAL ENTITY

Are we justified in diagnosing biliary dyskinesia when the spasm in the sphincter is secondary to

organic disease? If we are to keep the term "biliary dyskinesia" as a clinical entity, we must restrict our application of it to those instances in which the diagnosis is justifiable. Westphal defined the syndrome as a spasm of functional origin, occurring in the absence of organic disease. Inasmuch as biliary dyskinesia, so defined, is a specific entity, it would be unfortunate to obscure its meaning by applying the diagnosis to other conditions. If it is desirable to indicate that spasm of the sphincter of Oddi is present in addition to some other lesion, then our diagnosis should be "cholangitis with sphincter spasm," or "choledocholithiasis with spasm of the sphincter," etc.

A review of the literature and some recent personal experiences indicate how loosely we use the term "biliary dyskinesia." During the past five months I have seen six patients who were treated for biliary dyskinesia. The symptoms were due to common-duct stones, cholangitis, or both, in four patients, and to carcinoma of the ampulla in one. Only one case warranted a presumptive diagnosis of dyskinesia, and that was later proved to be questionable.

CRITERIA FOR DIAGNOSIS

As the diagnosis of biliary dyskinesia cannot be made accurately other than by surgical drainage of the common duct and subsequent x-ray studies, it may be helpful to review our criteria for making the diagnosis by presumptive methods. The clinical history and duodenal intubation are most frequently relied upon. The clinical history of biliary dyskinesia may be indistinguishable from that presented by the patient having an "unusual" cholangitis, common-duct stone, stenosis of the duct, tumor or pancreatic lesion. The clinical manifestations of biliary dyskinesia are essentially those of spasmodic pain localized in the epigastrium or upper right abdomen, with or without accompanying indigestion. The pain may be colicky or simply a vague distress. It may be relieved within a few moments by inhalation of amyl nitrite or a tablet of nitroglycerin under the tongue; but so may the spasms secondary to organic disease. Thus the clinical history is not adequate for differentiating the functional from the organic spasms. Furthermore, the patient nervously unstable may also have organic disease, thus adding considerable difficulty to an evaluation of the lesion by means of the history.

DUODENAL LAVAGE

If we rely upon our interpretations of duodenal lavage, we must be thoroughly experienced in this technique. For most of us the technical details of the test are considerable and the interpretation of the specimens difficult. Multiple tests are necessary, for normal variations simulate dyskinesia with distressing accuracy. Bile is often delayed in its appearance, even after stimulation with magnesium sulphate or olive oil, yet the very nature of these substances used to promote biliary flow is that which also releases the sphincter. The element of time is utilized by some to determine whether the sphincter is in spasm, but this method presupposes that there is a normal period of evacuation after stimulation. Unfortunately, the normal period extends well into the abnormal.

Some writers have suggested that when a delay has occurred in the appearance of bile with the Meltzer-Lyon technique, if the administration of amyl nitrate results in a prompt evacuation of bile we may assume that a spasm of the sphincter has been present. Many normal persons, however, have a delay in the appearance of bile. If we use magnesium sulphate as a stimulant and fail to get a flow of bile, but do have an expulsion after amyl nitrite, it is more suggestive but certainly not indicative of sphincter spasm, for organic lesions in the duct, as well as extraductal inflammations (pancreatitis), cause a similar reaction.

TONIC SPASM OF THE SPHINCTER

Colp states that one of the main reasons, aside from stones, for persistent biliary drainage after exploration of the common duct is a tonic spasm of the sphincter. My experience does not warrant such a presumption, for every persistent external fistula that I have seen has been due to organic obstruction. Nor can I subscribe to the many opinions expressed in the literature that spasm of the sphincter alone is responsible for jaundice or dilatation, of any moment, of the extrahepatic bile ducts. When jaundice or dilatation are found, they have invariably been due to organic obstructions, or to spasm secondary to organic lesions. The functional nature of biliary dyskinesia makes it problematical if a nervous spasm can be so marked or persist so long that some bile cannot eke through the sphincter.

ORGANIC AND FUNCTIONAL OBSTRUCTIONS

If there is a question as to the organic or functional nature of the obstruction, the external biliary fistula may be injected with brominol or other opaque solution as first suggested by Gabriel. Mirizzi utilized this method of making the diagnosis at operation by aspirating bile from the common duct with a needle and syringe and then injecting the duct through the same needle. Cholangiography thus performed at operation has the objection of misinterpretations caused by the effect of anesthesia. Hicken, Best, and Hunt showed that spinal anesthesia caused a spasm of the sphincter; functional spasms may thereby be simulated. The effect of ether on the sphincter is relaxing, and a true dyskinesia overlooked. When infiltration anesthesia alone is used, accurate results will obtain, as I have shown.

An indentation in the opaque shadow at the ampulla is usually adequate to establish the diagnosis of stone obstruction. When it is not obvious, amyl nitrite may be given; spasms will then relax, whereas organic obstructions will not be altered. If the spasm is secondary to organic disease, the spasm may be relaxed, but the outline of the duct will usually be such that organic disease is patently present. Organic obstructions are usually blunt, functional obstructions cone-like.

Occasionally, stones or detritus will be released after nitrite administration. I have twice released impacted stones in this way, and once succeeded

in washing "sand" out of the relaxed sphincter with saline solution. Pribram recommended the injection of two to three cubic centimeters of ether through the T-tube, and possibly it might be injected through an external sinus for the purpose of dissolving impacted stones. I utilized this method once for a period of four days, after which the stone passed and was recovered in the stool; the jaundice cleared and no further trouble developed. In two other instances I have dissolved sandy material in two days' application of the ether solution. The ether may be used in quantities up to four cubic centimeters, followed by sixty cubic centimeters of olive oil. This amount will cause some distress in some patients if it is given before the T-tube is well sealed off, for the solution is irritating to peritoneal tissues. Excess quantities of ether are dangerous, for the ether vaporizes at body temperature and causes an increase in the intraductal pressure. For this reason the T-tube should be left unclamped as a safety valve for the escape of vaporized ether.

PREVENTION OF POSTOPERATIVE SPHINCTER SPASM

Many attempts to prevent postoperative spasm of the sphincter have been made, utilizing small doses of magnesium sulphate orally, frequent small feedings of fat, medication with bile salts (preferably bile acids), atropin or amyl nitrite or nitroglycerin. More energetic efforts have been made by surgeons at operation, stretching the sphincter with a Mayo hemostat, dilating with Sim's urethral sounds or Bakes' dilators. In 1929, Del Valle and Donovan recommended section of the sphincter, and in 1936 Colp, Doubilet, and Gerber devised an instrument which they called a sphincterotome for severing the rim of the sphincter. Though of value in occasional cases, each of these methods has its hazard, as we have learned in the autopsy room. Meticulous care and an appreciation of the friable nature of diseased tissue must be relied upon in judging how much dilatation is possible. If the obstruction at the terminal end of the common duct is organic, such methods may be useful, although they are then more hazardous than the dilatation of normal tissue. If the obstruction is functional in nature, dilatation or sphincterotomy can be of temporary value only. In some instances, nature's repair of the incised sphincter is overdone, with a resultant polypoid overgrowth into the lumen of the duct.

Attempts have been made to control spasm by interrupting the nerve fibers to the sphincter. Weir and Snell reported instances of paravertebral block, and even two cases of section of the splanchnic nerves; but only moderate success followed.

TREATMENT

The treatment of biliary dyskinesia must be directed toward the entire nervous system of the patient. This ailment is one of body constitution in that nervous spasms are present generally. Psychiatric therapy is most important. It can be aided in the acute spasms by nitrite medication and in the chronic spasms by frequent small feedings containing some fat and saline laxatives or bile acid adjuvants.

CONCLUSIONS

1. Biliary dyskinesia is a clinical entity.
2. It is due solely to functional spasms of the choledochal sphincter.
3. It is a relatively rare phenomenon.
4. It cannot be accurately diagnosed, except by the introduction of substances opaque to the x-ray via external biliary channels.
5. Many of the clinical diagnoses, with or without x-ray aid, are erroneous in that they are sphincterismus secondary to organic lesions.

450 Sutter Street.

DISCUSSION

DONALD C. COLLINS, M. D. (1930 Wilshire Boulevard, Los Angeles).—Dr. Stanley H. Mentzer has covered this subject so thoroughly that little remains to be added by anyone. We are all indebted to him for clarifying a most vague and nebulous clinical entity, which in the past has confused many of us as to its exact clinical boundaries.

I fully agree with the author that the diagnosis of true biliary dyskinesia should be strictly limited to those cases of proved true functional spasm of the common-duct sphincter. This diagnosis can only be accurately made by a process of exclusion of various organic disease processes of the common-duct; such as stone, stricture, inflammation, or tumor. These pathologic entities can only be excluded by visualizing the common duct by some radio-opaque substance, and by studying the resultant roentgenograms made of that area over a period of several hours. A careful search must always be made to rule out possible disease elsewhere in the biliary system or in adjacent organs, because such pathologic processes often cause a secondary pseudospasm of the sphincter of Oddi. The essential point to be remembered is that true biliary dyskinesia, while a separate and true clinical entity, is, nevertheless, a fairly rare condition.

I believe that most of us, in the past, have been guilty of making a diagnosis of biliary dyskinesia far too glibly and without sufficient study. As a result, common-duct stones, strictures, inflammations, or tumors have been deprived of proper early treatment for additional periods of time, because of the false sense of security that such a diagnosis of biliary dyskinesia gives one. Often this additional delay before the institution of proper treatment, was decidedly harmful to the patient, and in some instances was responsible for death.

I believe that Doctor Mentzer's presentation here today is a valuable contribution to our general advancing knowledge of medicine and will, as a result, allow us to go home and treat this general class of patients far more intelligently in the future.

BERT S. THOMAS, M.D. (Physicians' Building, Sacramento).—When we realize that we have an area of proved responsiveness to so many and diverse organic influences as is the area of the sphincter of Oddi, it is quite apparent that we may only diagnose biliary dyskinesia by a definite process of elimination if we are to limit our usage of the term to Westphal's original definition: "a spasm of functional origin only." The very minute that we say "functional," we become involved in that relatively wide range of thresholds to emotional stimuli. This alone may well account for the too free usage of this diagnosis of a relatively rare and not too well explained clinical entity; for, most surely, the functionally unstable patient is going to have a low threshold to the most trivial organic factor, and such a patient may have a minimal organic disease.

I should like to rescue an overworked word of the past: after we have ruled out our confusing-like conditions by all the criteria that Mentzer so ably enumerates, may we not call this entity, "'essential' sphincteritis (Oddi) of the nervously unstable"? Such a fixed nomenclature would immediately point clearly and concisely to our weapons of treatment, and would rapidly turn us from the misuse of opiates in these cases and direct us to the more sound treatment as outlined in this excellent paper.

SOCIAL SECURITY ACT: IN RELATION TO MATERNAL AND CHILD HEALTH*

By ELLEN STADTMULLER, M.D.
San Francisco

DISCUSSION *by Oscar Reiss, M.D., Los Angeles; Clifford Sweet, M.D., Oakland*

IN any discussion of maternal and child-health work under the Social Security Act, three sets of conditions need to be taken into consideration:

First, the provisions of the Act by which plans must be governed;

Second, health conditions and vital statistics indicating the special needs in maternal and child-health fields; and

Third, the fundamental activities of a maternal and child-hygiene program.

The question before us today, then, resolves itself into how the provisions expressed in the Act can be used to meet the needs of rural California by means of these fundamental activities.

PROVISIONS OF THE SOCIAL SECURITY ACT

I. The Social Security Act, which became a law in August, 1935, not only establishes a system of federal old-age benefits, encourages the development of State unemployment compensation systems, and makes available to the states federal aid for administration of unemployment compensation laws and for old-age assistance, aid of the blind, vocational rehabilitation and the expansion of public health work, but also contains provisions designed to promote more directly the security of children. These provide for grants to the state, for aid to needy dependent children in their own homes, services to crippled children and services to children who are homeless, dependent, neglected or in danger of becoming delinquent. In addition, there are grants for maternal and child-health services to which this discussion is especially directed. The Children's Bureau, under the Secretary of Labor, will administer these child-welfare provisions, except the grants for aid to dependent children, in their own homes.

Financial Allocations. — The annual amount made available for maternal and child-health services is $3,800,000 for the fiscal year of 1936 and for each fiscal year thereafter, and this amount is divided as follows:

1. Available for payment of half the total expenditures under approved plans are $2,820,000, of which $1,020,000 is for uniform apportionment to the states of $20,000 to each state, and $1,800,000 for apportionment on the basis of the proportion of live births in a state to all live births in the United States. This sum is known as Fund A.

2. Available for allotment according to the financial need of each state for assistance in carrying out the state plan, $980,000. This Fund B takes into consideration economic needs within the state or special race or group problems.

Approval of Plans.—The state plans are to be approved by the Chief of the Children's Bureau if they conform with the following conditions:

First, financial participation by the state.

Second, administration of the plan or supervision of administration by the state health agency.

Third, such methods of administration as are necessary for the efficient operation of the plan. The Children's Bureau expressly waives methods of selection, tenure of office, and compensation of personnel.

Fourth, provision for reports by the state health agency on forms, and containing such information as required by the Secretary of Labor, and compliance with such provisions as the Secretary of Labor may from time to time find necessary to assure the correctness and verification of the reports.

Additional Provisions. — The three additional provisions are those which most nearly interest us at this moment:

Provision for the extension and improvement of local maternal and child-health services;

Provision for coöperation with medical, nursing and welfare groups and organizations; and

Provision for the development of demonstration services in needy areas and among groups in special need.

The term "state" is defined to include Alaska, Hawaii, and the District of Columbia.

CALIFORNIA HEALTH CONDITIONS AND VITAL STATISTICS

II. In order to give a picture of the health conditions of mothers and babies in rural California, the accompanying maps are presented. These cover the average maternal and infant mortality for a period of five years, mortality rates being indicated by the key. By way of contrast, maps compiled by the Federal Children's Bureau from the statistics provided by the Bureau of the Census, showing California's status as compared with the other states are included. You will notice that, although California on the whole may be classified among those states with low maternal and infant mortality rates, there are counties in California which have much higher mortality rates than the State as a whole.

Infant Mortality Rate.—In regard to vital statistics in connection with maternal and child health, we may say that the infant mortality rate, said to be the most delicate index of health conditions, has gone down from 75 per thousand live births in 1920 to 49.5 in 1935, a reduction of 33⅓ per cent. When our state mortality rate is analyzed, it shows that early infant mortality—neonatal infant deaths—continues, without material reduction, year after year. Neonatal deaths are so closely bound to prenatal conditions that they can only be reduced by prevention exerted through the mother and by many of the same procedures and precautions that prevent maternal deaths.

Maternal Mortality Rate.—Our material mortality rate has declined from 5.7 per thousand live births in 1925 to 4.7 in 1935, a reduction of 16 plus per cent. Death rates from sepsis remain constant,

*From the Bureau of Child Hygiene, California Department of Public Health, San Francisco.

Read before the Pediatric Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2-6, 1937.

See also page 356, in this issue.

TABLE 1.—*Maternity Home and Hospital Reports—Summary 1930-1935*

	Number of Live Births			Number of Maternal Deaths			Number of Infant Deaths			Number of Stillbirths		
	County Hospitals	Licensed Hospitals	Total in State	County Hospitals	Licensed Hospitals	Total in State	County Hospitals	Licensed Hospitals	Total in State	County Hospitals	Licensed Hospitals	Total in State
1930	6,002	42,387	84,382	50	145	443	205	844	4,945	277	1,132	2,427
1931	8,585	42,163	81,553	67	166	510	325	845	4,609	394	1,065	2,332
1932	11,322	38,958	78,108	79	99	448	542	796	4,125	454	887	2,153
1933	12,767	37,050	75,229	59	87	364	510	758	4,022	478	846	2,032
1934	12,781	39,391	78,442	59	108	346	648	800	4,047	440	809	1,874
1935	13,559	41,986	80,222	69	142	375	690	904	3,973	481	906	1,966

the decline having occurred in the group "puerperal causes other than sepsis."

In segregating these deaths into two groups—those delivered at home and those delivered in institutions—we have been aided by the fact that for many years the Bureau of Child Hygiene has had the responsibility of inspecting maternity homes and hospitals. As part of this inspection service we have received an annual report concerning the number of births occurring in these institutions; the deaths of mothers and of infants, with their causes, and the number of stillbirths; in addition, we have requested information upon the operative deliveries taking place within the institutions. In Table 1 you will see the figures which cover the licensed institutions in the State. They show that more than 65 per cent of the mothers in California are confined in institutions and away from their own homes. They show a gradually mounting number of deliveries in county hospitals. Within the period 1930 to 1935 county hospital deliveries have increased more than 100 per cent.

Over 16 per cent of the births in 1935 occurred in county hospitals; over 17.4 per cent of the infant deaths and 24 per cent of the stillbirths occurred in this group. The maternal mortality rate in county hospitals was 5 plus; the infant mortality rate was 50.9, contrasted with the figures 4.7 for maternal mortality for the State as a whole, and 49.5 for infant mortality.

FUNDAMENTAL ACTIVITIES IN A WORK PROGRAM

III. In discussing the fundamental activities of a maternal and child hygiene program, one necessarily emphasizes, first, the prenatal care of the expectant mother. In all the activities connected with the care of the mother, medical supervision is the great outstanding need with nurse instruction serving as a corollary to the physician in carrying out his plans for the mother. This is true not only in the prenatal period, but is essential in the whole plan of confinement care and postpartum service. The objective of this care is the prevention of complications and foreseeing of emergencies during pregnancy and confinement with the object of preventing maternal mortality, premature births, and stillbirths, so that the mother may survive her pregnancy in a sound condition, with the reward of a healthy child.

Aim of the State Board of Health.—The State Board of Public Health believes that the activities of the Bureau of Child Hygiene should be specially directed toward educating mothers to appreciate the services which the medical profession can render, and in advising, encouraging and urging mothers to seek this medical protection.

For the pediatrician, the program starts with the delivery of the mother, with the prevention of prematurity, the establishment of breast feeding, and the immediate care of the new-born. By Figure 4, you will see that at least 50 per cent of our infant mortality occurs within the first month of life, and again 50 per cent of this mortality occurs within the first ten days. The later benefits of pediatric care cannot affect this mortality to any considerable extent, since it depends largely upon premature birth, toxic conditions in the mother, inanition of the new-born, a very small portion being contributed by birth injuries and congenital abnormalities. Later mortality is dependent on communicable diseases, including respiratory and gastro-intestinal disease.

For the later care of infants, the establishment of regular habits of feeding, elimination, sleep and similar routine habits, with the supervision of growth, the prevention of communicable disease, and the gradual transfer from breast feeding to solid foods make up a large part of the care of the well child. These essentials have in them the elements of mental hygiene and, if properly conducted, meet many of the later problems of childhood which occur before the age of six years.

Aid in the Rural Areas.—How, then, can this program of fundamental activities be put to work in rural California to meet the needs of the State under the provisions of the Act?

Believing that the best means of educating a mother as to the needs of her child is the individual contact with the doctor, the program of prevention has centered itself in well-baby conferences conducted throughout the rural areas of the State, where no such facilities exist under public health auspices. The State has been districted into eight areas, to which a trained pediatric staff is assigned for conducting these conferences on a regularly worked-out schedule. As a necessary preliminary to this type of education, public health nursing activity prepares the ground and provides follow-up work. For those counties in the State that were without public health nursing service, personnel

TABLE 2.—*California—Total Births, Maternal Mortality, Infant Mortality, Stillbirths, Segregated by Place of Birth, County Hospital, Maternity Institution, Private Home*

	Number Live Births			Number Maternal Deaths			Number Infant Deaths			Number Stillbirths		
	County Hospital	Licensed Hospital	Total in State	County Hospital	Licensed Hospital	Total in State	County Hospital	Licensed Hospital	Total in State	County Hospital	Licensed Hospital	Total in State
1930	6,002	42,387	84,382	50	145	443	205	844	4,945	277	1,132	2,427
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1935	13,559	41,986	80,222	69	142	375	690	904	3,973	481	906	1,966

has been provided. Wherever possible a joint budget has been arranged, so that the local community feels itself as having a vital interest in the health program. In addition to organizing and assisting at the conferences, the nurses are instructed by the visiting pediatrician as to the type of home visit needed, in this way carrying to the home the guiding influence of the medical work.

Since the infant death rate in California rides upon the Mexican mortality rate, we have assigned a special demonstration, with one of our physicians in charge, to the Southern California area serving this group of mothers exclusively; nursing service is also included. We feel entitled to make this special assignment in this area since the resident white population is under the supervision of full-time county health units, through whom they can derive the same service.

Another of these physicians is assigned to a special demonstration among the children of the migratory workers. California's agricultural situation is such that many people have resided in the State for years, and yet have no legal residence since they move so frequently, following the crops. The Fund B, which was mentioned in speaking of the Social Security Act, is being spent in California for a demonstration among this group of children, in the effort to give them prenatal and infant supervision. The physician in this area has the assistance of two nurses in this demonstration.

In addition to this type of education every opportunity for group education is taken advantage of, both by the nurse and by the visiting physician, in addresses to women's groups and in the distribution of literature.

County Hospital Patients.—The first point of attack in the protection of maternal health is an attempt to lower the mortality among mothers delivered in county hospitals by providing adequate prenatal care, and education of mothers to reduce the infant mortality which occurs through prematurity, toxemia, etc. Thirty-three of our fifty-eight counties provide no protection for the mothers delivered under county auspices, often the first contact with the case being the arrival of the mother in labor at the county hospital. Since the physician who actually does the confinement, as well as the agent responsible for admissions to the county hospital, must be consulted before plans of this type are put into effect, prenatal clinics are arranged county by county. Up to the present, five such new clinics have been established. Again, the physician assigned to the district is responsible for conducting these clinics, reports being made to the physician who will do the confinement. The nursing service is provided either by our own staff nurses or by the local public health nurses in the employ of the county.

In all of these conferences advice on the value of immunizations is given to the mother. The actual work of immunization is undertaken only at the request of the local health authorities. It should be especially stressed that in no instance do our physicians give treatments. All cases of this kind are referred to their own physician for care, our object being to aid the mother to carry out the procedures for which she is responsible and which contribute to the health of her child.

Dental Defects.—When any group of children is examined, dental defects contribute over 50 per cent to the list of handicaps. Carrying with them, as they do, a constant infection, they contribute largely to the lowered vitality and incidence of disease in the groups afflicted, especially in relation to infected tonsils and adenoids. With the idea of stressing the need for better diet in the prevention of dental defects, and of the part played by early care of small fissures in the enamel, a dental program is being undertaken which provides for complete surveys of the teeth of children in rural counties. Accompanying the survey will be as much educational work as possible on the proper diet, the need of care, and the benefit of early dental service. From the children surveyed those from three to ten years, inclusive, will be selected and their financial status checked under local guidance. The children whose

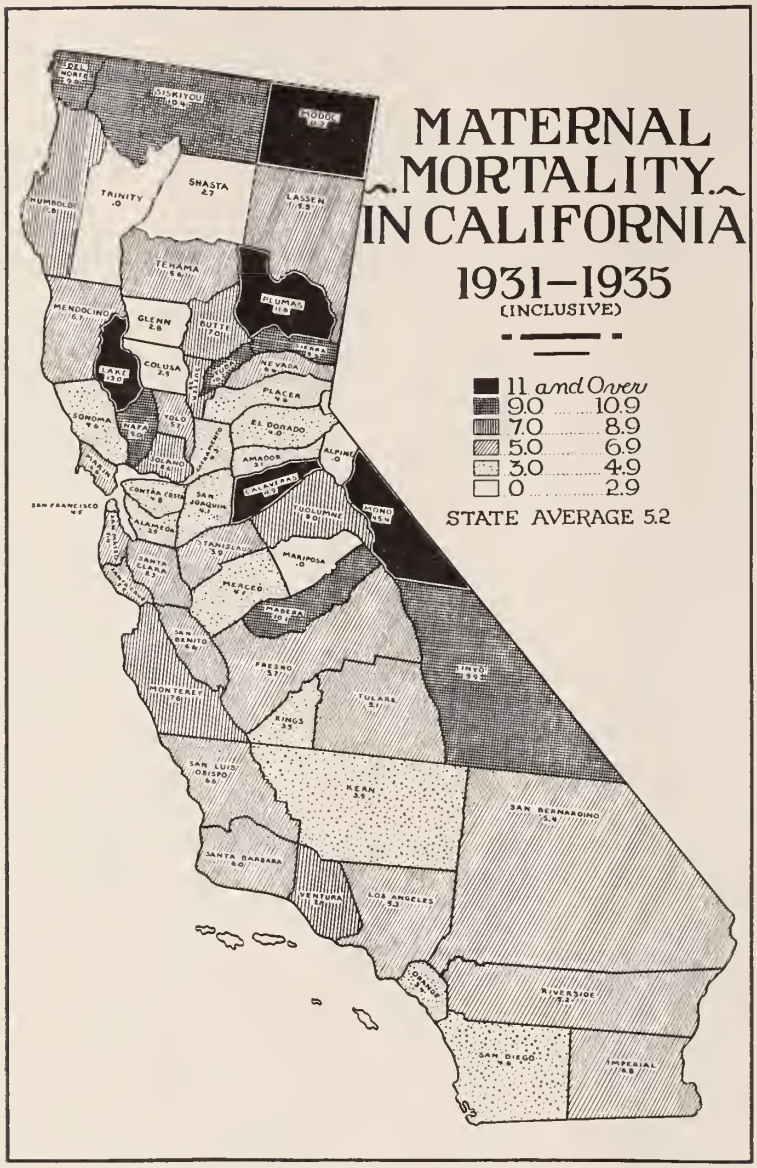

Fig. 1.—Maternal mortality rates 1931-1935 (inclusive). Average rate for five-year period for each county.

parents are unable to pay for dental service will be given cleanings, extractions, and amalgam or cement fillings, as a demonstration of the possibility of good mouth hygiene. This age group was selected because it still retained its deciduous teeth and yet, among the older children, would be those with several permanent teeth. If this program can be followed year by year, there will gradually grow up through the schools a generation with improved dentition and knowledge of dental hygiene.

At present this program, approved by the State Dental Society, is being carried out by members of the dental profession; dental hygienists may be added to the staff at a later date to relieve the dentists from the preliminary survey and reserve their time for the part of the program needing more technical skill.

Postgraduate Courses.—It was planned that, in addition to this service and educational program for the lay population, postgraduate education, both for the medical and nursing profession, would be undertaken. This has been a recommendation of all those investigating maternal and child-health conditions; it found greatest voice in the sections of the White House Conference having to do with maternal and child-health protection. Plans along this line have not yet been brought to final shape, but no program of maternal and child health can be complete without a double-headed educational program, educating the population of our smaller communities to appreciate modern maternal and child hygiene, and refreshing the physician, dentist and nurse in the same communities by postgraduate work so that they can provide the medical service which will be requested by the community.

CRIPPLED CHILDREN'S PROGRAM

To complete the picture of medical service available under the Social Security Act, a few words are appended concerning the Crippled Children's program, which is also being administered under the State Department of Public Health.

The Social Security Act provides for grants in aid, available "for locating crippled children and providing medical, surgical, corrective, and other services and care, and facilities for diagnosis, hospitalization, and after-care, for children who are crippled or who are suffering from conditions which lead to crippling . . ."

The plan submitted to the Federal Children's Bureau must comply in

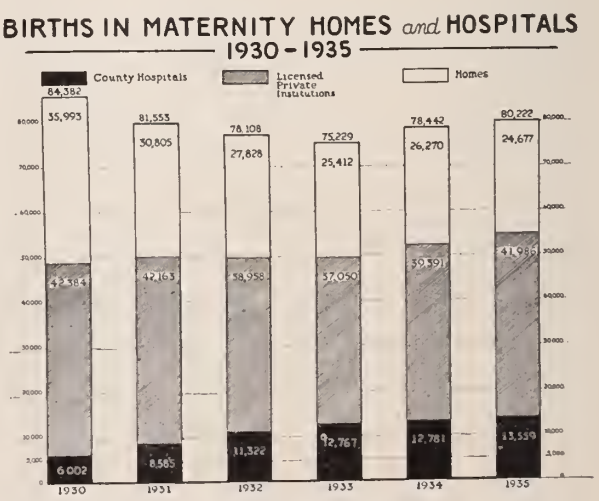

Fig. 3.—Births in California 1930-1935 (inclusive). Segregated by place of birth—county hospital, other maternity institutions, or private home.

general with the same provisions which apply to the maternal and child-health funds. In addition, a Professional Advisory Committee and a Lay Advisory Committee are set up under the provision which calls for coöperation of medical, health, nursing, welfare, and educational groups and agencies. According to the present plan, the same committees serve for both types, with the addition of the necessary orthopedic members to the Professional Advisory Committee when it has to do with Crippled Children's activities.

A survey has been made throughout the State in coöperation with nurses, Bureau of Vital Statistics, Bureau of Epidemiology, Bureau of Child Hygiene, and Bureau of Tuberculosis. Other public officials having to do with children are requested to report all known cases. In addition, private agencies and organizations are likewise asked to cooperate in the survey.

Diagnostic clinics for the purpose of locating and giving treatment to crippled children have been held in eight counties. An orthopedic surgeon, a field nurse, and a medical social worker are attached to these clinics, at which physical examinations, with recommendations for treatment, are made by qualified orthopedic surgeons for all children brought to the clinic, regardless of financial condition. Children are segregated according to the ability of their parents and guardians to furnish proper care, and the medical histories of children requiring corrective measures are reviewed so that the length and time of hospitalization can be determined. Medical and social after-care and supervision will be given all cases requiring corrective measures. In addition, an educational program for the prevention of deformities and for the early treatment of crippled children will be undertaken.

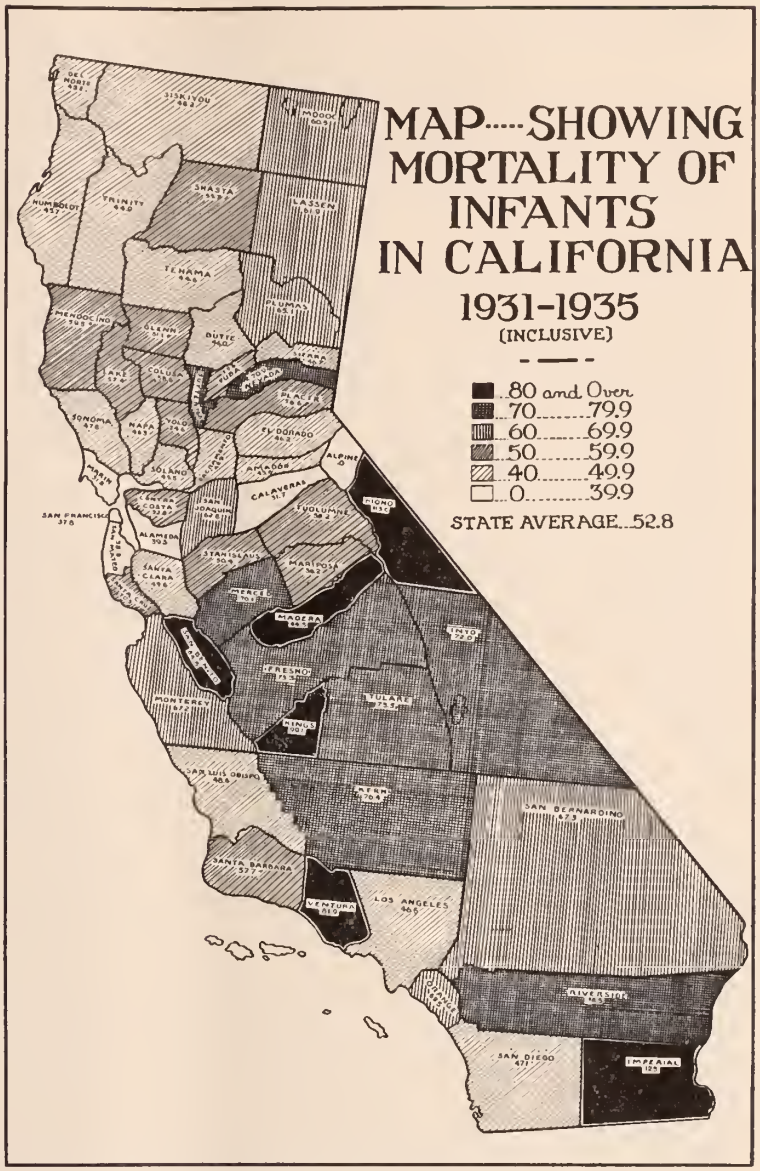

Fig. 2.—Infant mortality rates 1931-1935 (inclusive). Average rate for five-year period for each county.

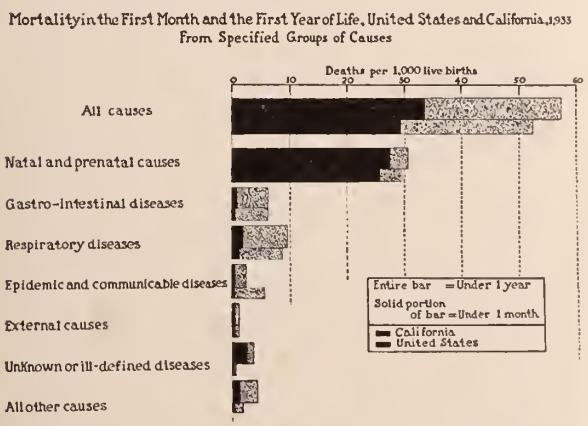

Fig. 4.—Infant mortality, 1933, in the first month and first year of life, from specified group of causes. Upper bar, United States registration area; lower bar, California.

To date, eight diagnostic clinics have been held under this plan, at which 502 children were examined. One-fifth of these were found to have orthopedic defects needing immediate correction, and one-tenth were advised to remain under orthopedic supervision.

This is an ambitious program, and its success will depend on the coöperation which is received from the local communities. To them and their interest this program will owe a great measure of its success.

State Board of Health,
State Building, San Francisco.

DISCUSSION

Oscar Reiss, M.D. (1930 Wilshire Boulevard, Los Angeles).—The purpose of the Social Security Act, adopted by Congress and approved by the President,

August 14, 1935, is stated in the general title of the Act to be the following:

"To provide for the general welfare by establishing a system of federal old-age benefits, and by enabling the several states to make more adequate provision for aged persons, blind persons, dependent and crippled children, maternal and child welfare, public health, and the administration of their unemployment-compensation laws; to establish a Social Security Board; to raise revenue; and for other purposes."

Security for the American home and protection of the family life of the wage-earners is the broad foundation upon which the welfare of American children must rest. All of the social security measures may truthfully be described as child-welfare measures. There is an obvious relation between adequate wage levels and full regular employment sufficient to yield a stable and adequate family income, unemployment insurance (when full employment fails), provision for preventive health services, accident prevention, and similar social measures, and the welfare of the children. Even old-age security measures promote the welfare of children by lifting the burden of support of the aged from families whose resources are needed to care for growing boys and girls.

In addition to general measures for social security, certain special measures designed to promote the normal growth, development, and welfare of children are provided. The health and welfare of children have been adversely affected in many ways by the depression, not only through family distress resulting from unemployment and poverty, but also through curtailment of resources of agencies created to serve their needs.

The special measures designed to promote the security of children come under three headings, closely related to one another, namely, (1) measures for the care of the dependent, neglected, fatherless and homeless children, and children whose surroundings are such as gravely to impair their physical and social development; (2) crippled children; (3) measures for the protection of child and maternal health.

For the purpose of carrying out these special measures, the act provides for subsidies to the states, consisting of a uniform apportionment to each state plus an additional apportionment on the basis of the number of live births, etc. These funds must be matched by the states. There is also available for allotment, according to financial need for assistance in carrying out state plans, a special fund that does not have to be matched by the states.

Examination of the provisions of the Act which are concerned with maternal and child health, crippled children, and child welfare, reveals that their primary purpose is to extend and strengthen services for mothers and children in rural areas suffering from economic distress, and among groups in special need. These are the people who have been hitherto, for the most part, outside the reach of those health and welfare services that have been more generally available in the larger cities. In this connection it is significant to note that, since 1929, rural infant mortality rates have been higher than urban rates, a reversal of the condition existing in prior years.

Concretely, this philosophy is expressed as a coöperative relation to be developed between the Federal Government and the states; the states and the local government units; the official agencies within these areas of government concerned with health, education and public welfare; the official agencies and representatives of voluntary groups such as medical societies, public health nursing organizations, other health groups, and social welfare agencies.

This part of the program of the Social Security Act can be carried out only as it becomes, in each state, a state-wide program, clothed with specific provisions for making it effective in the lives of men, women, and children of the state, and supplemented by such other measures of social provisions for human needs as experience shows to be necessary and feasible. As a foundation for all these professional undertakings, the understanding and intelligent support of professional and lay groups are essential.

As a member of the Advisory Committee to the Children's Bureau on Maternal and Child Health, I am in a position to say most emphatically that the Bureau does not wish to dictate to any state what its particular program shall be, or to take a hand in the selection of the personnel needed to carry out its program. It does entertain hopes, however, that the personnel will be selected according to high standards of training and fitness for the job.

Particular stress is being laid upon the vital importance of education in this program; education of the physician as well as of the layman. Too few of our group are evidencing interest. The pediatrician, above all citizens by reason of his training and experience, with his knowledge of the deleterious effects of adverse heredity, unfavorable environment, and improper food upon the growth and development of the child, should feel it his urgent duty not only to participate, but to seek leadership in this constructive program.

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Clifford Sweet, M.D*. (2490 Summit Street, Oakland). Doctor Stadtmuller has given us a comprehensive statement of the present and proposed program of the State Board of Health, concerning maternal and child health, to be carried out in rural districts with the assistance of the federal funds made available under the conditions of the Social Security Act.

I am certain that the mothers and children of rural California can be greatly benefited through the wise carrying out of this program. The medical profession can best serve not only the cause of public health, but its own interests, by whole-hearted coöperation in planning and carrying out this program. Doctor Stadtmuller spoke of winning the support of local communities as a necessary part of the program. I know, from many conversations with her, that she realizes that the most important group to be won are the local medical men. When I advise the fullest coöperation of medical men in carrying out this work, I am in no way an advocate of any form of state-controlled, socialized, or otherwise regimented medical profession. On the contrary, I am one who would cling to and fight for individual freedom and initiative, carried as far as may be, while having clearly in mind the rights, freedom, and best interests of other citizens.

I know there is no more generous body of men anywhere than the medical profession. However, we are human, and in our resentment against anything which gives even remote promise of curtailing our individual freedom we are apt to display an emotional attitude of anger and distrust rather than the more permanent and generous one to which the calmer, slower process of reason surely leads us.

Not only will the program of the California State Board of Public Health, as outlined by Doctor Stadtmuller, best serve the mothers and children of California, through and with the whole-hearted coöperation of the medical profession, but by this very coöperation, both in planning and carrying it out, we can most strongly exert influence; aye, even define and limit its entire public relationship as well as its effects upon the practice of medicine. On the other hand, our hostility can only make the program less effective in its most desirable objective, namely, improvement in maternal and child health, while at the same time it will, in several and devious ways, increase the speed with which bureaucratic medicine will compete with or dominate us.

We cannot defeat or halt such measures as this, because public opinion is strongly for them and we are a very small minority, not especially astute in the field of practical politics. Public opinion generally remains entrenched behind measures that are fortified with available funds for the payment of salaries. There is no marked human tend-

* Note.—Doctor Sweet is a member of the Professional Advisory Committee provided to coöperate with the State Board of Health in carrying out the provisions of the Social Security Act, and is state chairman for northern California of the American Academy of Pediatrics.

ency to murder or otherwise injure "Santa Claus." Those of us who teach pediatrics, either in organized teaching centers or through professional journals and meetings, must and will continue our best efforts to give freely all the knowledge and skill we possess. Young physicians not yet established in private practice may well find positions offered by the Government so attractive that, gradually, enough will remain in the service to make it a permanent part of American life. Once established, popular demand will clamor for an ever-increasing reliance upon it for full medical care.

The Social Security Act proposes at the present time to make the greatest possible use of the private practitioners already established in their respective communities, and is offering postgraduate instruction in maternal and child welfare in order to raise the grade of care available within the private practice of medicine. There can be no more certain guarantee that any service will remain free from outside influence than a satisfactory and increasing degree of excellence within itself. It would seem that members of the medical profession should welcome this opportunity to improve their training, especially since it can be had without cost or great loss of time. Prenatal and child-health conferences should stimulate the desire for this type of service in the community, with a consequent increase in the practice of those physicians who are trained to offer the best service in these fields.

A certain number of full-time physicians are necessary to carry out this work; but I think the introductory stage of the work and the postgraduate teaching can best be done by well-known, experienced practitioners. These older, better known physicians will, through experience, know how to manage people better than recent graduates and, being themselves private practitioners of medicine, will have an entrée into the councils of local medical societies.

Certain strategic points should be chosen at which an Institute on Child and Maternal Welfare should be held, lasting perhaps the greater part of the week. During this time one or several of the experienced men of whom I have spoken should live in the community, giving clinics open to all members of the local profession, appearing before the local medical society and talking to lay groups, such as Parent-Teacher meetings and service clubs, and being available for consultation, without cost to the patient, upon call by any physician in the community.

For service such as this by physicians from the larger centers the Government is offering a compensation of $25 per day and expenses. While this amount of compensation will bring a considerable measure of relief to those of the profession who have formerly done a great deal of this kind of work at their own expense, it is, I think, insufficient. I have talked with many of the best-established pediatricians in California, and all have freely expressed their willingness to make certain sacrifices in order to carry this work out. The compensation should, I think, be made $50 per day and expenses. If this were done, men of experience and ability could afford to spend much more time in the work. The extra money spent for services such as this would be spent much more profitably than in securing a longer term of service from less experienced physicians. I am certain that the net results of a few days in a community by an experienced, astute teacher of pediatrics might well be greater and more lasting than a month's effort on the part of a young, inexperienced, full-time Government employee, with less, or at least no greater, expense to the Government. So while physicians will go out from the medical centers, even at a sacrifice, to carry on this work, I want to go on record in favor of more adequate compensation in order that the teaching and leadership may be the best obtainable.

Incidentally, I should like to call Doctor Stadtmuller's attention to the fact that temporary (cement) fillings have no place in children's dentistry except that they indeed be for temporary use only.

PLASTIC OPERATION ON THE PELVIS OF A SOLITARY KIDNEY*

By JOHN A. DOUGHERTY, M.D.
Oakland

DISCUSSION *by Lionel P. Player, M. D., San Francisco; Albert M. Meads, M. D., Oakland; George W. Hartman, M. D., San Francisco.*

IN 1891, Kuster[1] recorded the first successful plastic surgical operation on the renal pelvis. The term "successful" is used with reservation, since before the days of pyelography the measure of surgical result lacked the present-day precision. One year later, Christian Fenger[2] published an account of a plastic operative procedure for the relief of hydronephrosis due to valve formation and stricture of the ureter. Following Fenger's article in the *Journal of the American Medical Association,* the renal pelvis became the recipient of a surgical attention more enthusiastic than discriminating. As an inevitable result, the procedure fell into disfavor. In 1927, Quinby[3] reported thirteen cases of this type, and two years later, in a symposium at the annual meeting of the American Medical Association in which von Lichtenberg,[4] Walters,[5] and Quinby[6] participated, fifty-seven cases were discussed. The influence of this meeting did much to put the operation on a respectable basis.

IS SURGICAL PROCEDURE INDICATED?

The idea of surgery of the renal pelvis has not met with unanimous acceptance. Some urologists feel, with Moore,[7] that, since this operation has been successful in so few cases, perhaps "conservatism would find a truer expression in that procedure which offers the best prospect of permanent relief." Keyes[8] states that in kidneys which are materially infected, plastic operations on the pelvis will break down and the resultant scar tissue will cause kinking and obstruction. The accuracy of Keyes' observation will probably hinge upon his interpretation of the phrase "materially infected," since both Quinby and Walters report successful results on infected cases, and in the case about to be reported the urine was purulent. Cabot[9] expresses an "abiding skepticism" in regard to ultimate results. He feels that these repairs break down later as the results of infection. Walters[10] believes that infection does not have much influence with the final result, and suggests that the chief factor is the complete removal of obstruction.

FOUR METHODS OF SURGICAL PROCEDURE

In the surgical attack on ureteropelvic obstructions four methods have been most often used:

1. Reimplantation of the excised ureter into the pelvis at its most dependent part.
2. Longitudinal incision with transverse closure.
3. The "Y" incision with the "V" closure.
4. Some type of lateral anastomosis, either with the pelvis or another portion of the ureter.

* Read before the Urology Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.

Fig. 1.—Preoperative pyelogram.

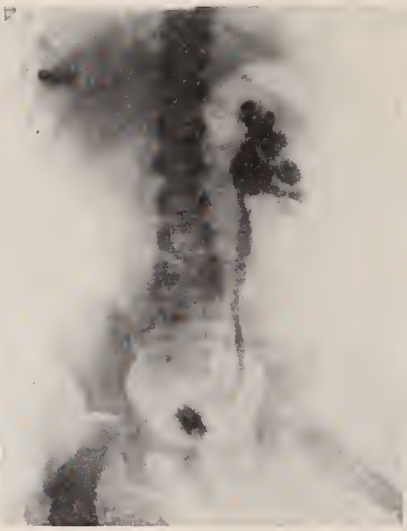

Fig. 2.—Six months' postoperative pyelogram.

Fig. 3.—Eighteen months' postoperative pyelogram.

Combined with this have been, when indicated, resection of the renal pelvis, nephropexy, stripping of the capsule or renal sympathectomy. Von Lichtenberg [11] is opposed to resection of the pelvis because he believes that it is unnecessary, and that it may interfere with the mechanical functions of the pelvis. Walters,[12] on the other hand, resects the pelvis with apparent impunity. Nephrostomy is definitely indicated, and in infected cases splinting the ureter with a ureteral catheter is advised.

INDICATIONS FOR OPERATION

The indications for this operation are:

1. Bilateral hydronephrosis.

2. Unilateral hydronephrosis in a kidney which seems to have sufficient parenchyma to justify the effort at its redemption.

3. Hydronephrosis in a solitary kidney.

In the congenital solitary kidney there are three anomalies which are commonly confused. Pilcher[13] defines these as:

1. The hypoplastic kidney which, except for its small size, may be normal. The function may be normal and the ureter is patent, though on account of its size the kidney is incapable of independently supporting life.

2. Renal aplasia, in which the kidney is represented by a small mass of fibrous tissue. The ureter is present, but does not connect with this mass, which may contain glomeruli and tubules.

3. Congenital absence of the kidney, in which there is a complete absence of the kidney, ureter, and one-half of the trigone. The case about to be reported seems best to fit in the aplastic group.

REPORT OF CASE

The patient is white, female, aged two and one-half years. Both parents are healthy, and the one other child, a younger brother, is apparently normal. At the age of twenty months the patient suffered an apparent renal infection with fever, pyuria, and albuminuria. She was treated with bed rest and urinary antiseptics, and recovered, although from that time on the urine showed pus cells whenever examined. Nine months later an upper respiratory infection occurred with fever and a two days' anuria, which was relieved after a normal saline hypodermoclysis. At this time a mass was felt under the skin, in the upper left abdomen.

On account of the pyuria the child was cystoscoped at the age of twenty-seven months. Purulent urine was secured from the left kidney. The right ureter was catheterized, but no urine was obtained. Indigo-carmin administered intravenously appeared faintly in the urine in fifteen minutes, and the blood-urea nitrogen was 30.3 milligrams per 100 cubic centimeters of blood. No pyelogram was taken at this time. The examination was followed by a twenty-four-hour anuria. One month later pyclography was done, which showed an absence of right kidney and a left infected hydronephrosis, with an obstruction at the ureteropelvic junction. An operation, designed to relieve the above obstruction, was proposed to the parents who, after a consultation with Doctor Hinman, accepted.

At operation the kidney was exposed and the upper ureter freed. The obstruction was found, as shown in the pyelogram. Lying over the ureter at this point was a band of fibrous tissue. This was divided. A "Y" incision in the ureter was made with the leg of the Y, extending down through the strictured area. This incision was closed like a V, a ureteral catheter was passed down the ureter, and a nephrostomy tube extended through the cortex. The ureteral catheter was removed on the fourth day, and on the tenth day the nephrostomy tube came out. Attempts to replace it were not successful. No ill effects followed its removal. The wound healed immediately and the patient voided normally. At a cystoscopic check-up six months later, the urine showed a few clumps of pus cells and B. coli on culture. A blood-urea nitrogen of 17 milligrams per 100 cubic centimeters of blood and a normal excretion time of four minutes for indigo-carmin were noted at this examination. At ten and fifteen months later, the urine was negative on smears for organisms and showed no pus cells upon being centrifuged. At eighteen months postoperative, a cystoscopic check-up was done. The urine showed a normal excretion time for indigo-carmin, clumps of pus cells, and cultured B. coli. After one week's administration of mandelic acid, the urine again became normal and has remained so until the present time.

COMMENT

1. The history of plastic operations on the renal pelvis indicates that it reaches its deserved usefulness only if used with discrimination. The indications are suggested.

2. Ureteropelvic obstructions, causing hydronephrosis and renal impairment in a solitary kidney, are one of the prime indications for this form of conservative surgery.

3. The history, operative findings and postoperative course of such a case are herein related.

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DISCUSSION

Lionel P. Player, M. D. (384 Post Street, San Francisco).—The inevitable result of obstruction with superimposed infection, gradually increasing pelvic dilatation and back pressure, is death of the kidney, unless some method of combating the condition is instituted.

The technique employed in surgery of the renal pelvis and ureter may be any one, or a combination of those enumerated by the essayist; and will be governed by the type of pelvic or ureteral anomaly or distortion presented. The main object is to establish dependent drainage.

It is problematical whether the newer methods of diet and drugs will sterilize the urine where drainage is inadequate; but, granting that they will accomplish that purpose, back pressure due to obstruction and increasing pelvic dilatation will eventually inhibit renal function, and favor recurrent infection.

Dilatation of ureteral or ureteropelvic strictures in indicated cases is sometimes effectual and should be persisted in, if not attended by too great reaction. Following plastic surgery on the pelvis or upper ureter, Hinman's nephrostomy tube placed in the pelvis and upper part of the ureter is the safest method for temporary irrigation and drainage. Attention to extrinsic factors causing obstructions, where practical, must be eliminated. By the term "practical" is meant that full consideration must be given to the blood and nerve supply of the upper ureter and pelvis, in order to conserve the viability of these structures.

The choice of suture material is important. In my cases, plain catgut No. 00 has given the best results.

Albert M. Meads, M. D. (251 Moss Avenue, Oakland). Plastic operations upon the renal pelvis have been the subject of discussion for many years, but until recently there has been no general acceptance of such procedures because of the poor end-results. However, the pioneer work of Quinby, Foley, Cabot, and others, has now established fairly definite indications that justify plastic operations and technical procedures that promise satisfactory results in a reasonable number of cases.

Personally, I feel that when a kidney is normal on one side, a plastic operation on the other should be attempted only after carefully considering the ability of the patient, physically and financially, to undergo a possible secondary nephrectomy if the plastic operation fails. Failure is primarily due to previous infection which, unfortunately, usually exists. Routine drainage of the kidney by nephrostomy, splinting of the ureter with an indwelling ureteral catheter, and carrying out a surgical technique that will insure drainage of the renal pelvis at its most dependent part are fundamental.

Doctor Dougherty's excellent result is due to the fact that he carried out these fundamental principles.

George W. Hartman, M. D. (999 Sutter Street, San Francisco).—There is a strong feeling among urologic authors that plastic operations on the kidney are of little value when a good opposite kidney is present. A resected kidney "lays down" in the presence of an active mate. That it never reaches its full capacity again by compensatory hypertrophy, or that the opposite kidney does not hypertrophy, has been determined by Plaggemeyer and Cummings. It may lose function or atrophy, probably both.

On the other hand, surgery on the solitary kidney is becoming more frequent, as surgical understanding and technique are improved. This is logically most common in calculus, where indications are most imperative and dramatic, notably with impaction of a stone or fragments of one, which make its presence felt with violence.

Perhaps the height of success in plastic surgery upon a solitary kidney was reached by Judd, who resected (1925) the upper third of a single kidney with infected upper calices for stone, in a woman who underwent a successful childbirth in the following year. Thomas N. Hepburn of Hartford, Connecticut, in the same year, removed the upper half of a solitary (remaining) kidney for stone and infection. The patient was living and well four years later.

Operations of less urgent need, that is, for hydronephrosis and stricture, have been of slower development.

Congenital absence of a kidney is rare. It has been reported in about one in sixteen hundred autopsies by Campbell. Doctor Dougherty's patient might well have been of the anomalous type, confused with hypoplastic kidney, renal aplasia or congenital absence, which he cites, or there might have been an autonephrectomy following the child's previous infection. The case was somewhat urgent and unpromising. The operation was skillfully and expeditiously done.

Nephrostomy drainage is an essential adjunct; fortunately the tube stayed in long enough. The indwelling ureteral catheter, frequently referred to as a "splint," is a valuable factor in preventing hydrostatic pressure against a suture line. It may well be classed as a drain. I would like to stress here the value of *failure* of the intravenous pyelogram, if viewed as a functional test. If there is inadequate shadow, it indicates a nonfunctioning or a poorly functioning kidney. When the technique for serial, progressive films for pyelograms has been developed, the time of appearance of the dye will become a valued observation.

In view of the limitations of mechanical treatment in patients so young, mandelic acid has been of much help to this patient. It can be applied with much less concern, in children, than sulfanilamid, for instance. Doctors Goldstein and Abeshouse have recently concluded that man can survive with one-fourth of his total renal substance—that is, one-half of one kidney. Doctor Dougherty's patient has a very good outlook.

PHYSICAL DEFECTS IN THE MENTALLY-RETARDED SCHOOL CHILDREN*

By MARIAN GOLDWASSER, M.D.
Los Angeles

DISCUSSION *by Ellen S. Stadtmuller, M.D., San Francisco; Sven Lokrantz, M.D., Los Angeles; A. J. Rosanoff, M.D., Los Angeles.*

THE problem of physical defects in the mentally-retarded school children has been studied in this country and abroad. The most extensive studies have been made in England by such authorities as Tredgold, English, and Burt. They state that out of 150,000 children examined, 0.5 per cent to 1 per cent were mentally defective. The figure in the United States, according to statistics, is 2 per cent, and in Los Angeles about 1.9 per cent. It is of interest to note that there are more mentally-deficient boys than girls, the proportion given being three to two.

There are more mentally-deficient children in the large cities than in the smaller communities.

Mentally-defectives are just as prevalent among the upper as the lower classes of society.

ETIOLOGIC FACTORS

The factors responsible for the mental deficiency may be traced to the prenatal and postnatal life of the child. They may be of a hereditary, congenital or acquired origin.

The origin is *hereditary* in cases of deficiency in the male or female germ-cells of the parents—the carriers of true heredity.

The reasons for the deficiency are not always clear. Some authorities believe that imperfect contraceptive methods, which only damage, but do not kill the spermatozoa and permit them to penetrate into the uterus, may be responsible for a defective offspring. The advanced age of the parents, particularly of the mother, is considered to be an important factor in the deficient structure of the germ-cells.

The origin is considered to be *congenital,* if mental deficiency is caused by illnesses, injuries, or poisons acting on the fetus in utero, like congenital syphilis in the mother, lead-poisoning, alcohol, or an unsuccessful abortion.

The origin may be considered of an *acquired* nature when mental deficiency results from birth injuries, or injuries and illness of the brain received after birth. The higher incidence of mental deficiency in boys is due to the fact, stated by many, that the male fetuses are more vulnerable than the female—both in a general way and with respect to the organs of intellectual function.

Are any congenital or acquired physical disorders, such as glandular disturbances, congenital syphilis, or others responsible for mental deficiency?

Glandular disorders are frequently found in mentally-retarded children, but they may not always be responsible for the retardation.

In a study of 317 mentally-defective children made recently by Dr. M. Gordon and Dr. L. Ruskin, of the Department of Pediatrics in Long Island College, it has been found that 155 had endocrine symptoms and 162 did not have any. In another study, made by the same authors on 958 children with mental defects, 529 had glandular defects and 429 were free of them.

Opinions differ as to the frequency of the occurrence of glandular defects in the mentally-deficient, and statistics vary from 2.4 per cent to 6.2 per cent.

It may be of interest to note that, in the above-mentioned studies, the nonglandular cases had a lower I.Q. than those which showed a definite disturbance of the endocrine glands. There are three probabilities, according to Gordon and Ruskin, in the relationship between mental deficiency and the disturbance of the glands:

1. Either the mental status is due to the endocrine disorder,
2. Or the mental status is the result of an unrelated, nonendocrine cause,
3. Or the mental retardation and the endocrine disturbance are both due to a third common, genetic cause—congenital, or acquired.

Is congenital syphilis a frequent cause of mental deficiency?

Authors disagree upon this also. Professor Gött, of the University of Bonn, Germany, states that many feeble-minded children show evidence of congenital syphilis, while others have a suggestive history, and he states further that, although general statistics vary, he found that in a large percentage the Wassermann reaction is positive.

Kropelin of Germany assumes a syphilitic background in 33 per cent of his cases. He states, as an example, the frequency of encephalitis in the newborn, resulting from syphilis in the mother during pregnancy.

The English and American authors, on the other hand, believe that no unduly *large* proportion of mental defectives are subject to congenital syphilis, or show a positive Wassermann reaction, and that mental deficiency constitutes no proof that the latter is due to the former.

Diseased tonsils, deafness, and blindness tend to mask the intelligence and reduce its effectiveness, but do not cause mental deficiency. They may retard the child's ultimate development by an equivalent of six to twelve months' progress, but are easily remedied.

Epilepsy, on the other hand, gradually leads to the deterioration of the brain and to a defective intellect.

Hereditary causes are responsible for a much larger portion of mental defects than are the congenital or acquired.

The Committee on Mental Deficiency in London, England, in a report to the British Medical Association in 1932, states that 70 per cent of all mental defects are inherited, while 30 per cent are acquired, and that in a large majority heredity furnishes the *material,* and environment shapes it and uses it. This statement does not imply that the majority of mentally-deficient children are born of mentally-deficient parents.

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* A school physician's viewpoint.

Read before the Section of Education of Exceptional Children of the Los Angeles Board of Education on May 11, 1937.

In a study made among the London school children, it was found that barely 6 per cent of the mentally-defective children had defective parents, but 38 per cent had at least one parent definitely dull, and 12 per cent had one parent who suffered from epilepsy.

A seemingly sporadic case in a family is not rare, but a thorough study may trace it to a neurotic or unstable relative of tainted stock.

In other words, mental deficiency is usually inherited as a recessive characteristic, but in certain cases may act as dominant.

The inheritance takes the form of a neurotic diathesis, or an innate predisposition to a neurotic weakness. No clean application of the Mendelian law to the inheritance of mental defects has been made. But, as a rule, feeble-minded parents are usually apt to produce feeble-minded children, and intelligent parents are generally apt to bring intelligent offspring into the world. This rule has many exceptions. If there is one feeble-minded child in the family, it is quite possible that there may be others.

PHYSICAL STIGMATA

Many mentally-defective children have quite a normal physical appearance and cannot, by casual inspection, be singled out among other children as abnormal.

The majority, however, show more or less evident stigmata of degeneration. Asymetry or unusually large or small size of the head; deformities of the external ear, or its complete absence; an epicantic fold from below the eyebrows continuing around the internal angle of the eyes; differently-colored irises, irregular pupils, a squint; a flattened, depressed nose, large, fleshy nostrils; coarse, prominent lips, a heavy, flabby, open mouth, with irregular, protruding teeth are the prominent features in extreme cases. Webbed fingers and deformed toes are not rare. The skin is coarse and hairy, or abnormally hairless. The stature is usually small with excessive adiposity, gigantism may be present in other cases. The posture is poor, the gait is clumsy and ungraceful, the speech may be defective; many are nervous, jerky and subject to choreiform movements. Few normal individuals are without at least one of these stigmata, but the coexistence of several in the same individual indicates abnormality.

Anatomical studies of the brain in the mentally-retarded show an imperfect development or an irregular arrangement of the brain cells. Very often there is found a deficiency in the numbers of the cells and a poorly-developed, capillary system. These findings may be responsible for the inefficient function of the brain.

TYPES

There are several distinct types among the mentally-retarded children. Of these the Mongoloid has the most conspicuous appearance and facial characteristics responsible for the name. According to Crookshank, this type is not found among negroes and is rare among Jews. The true ethiology of these cases is unknown. They are frequently born to mothers past forty years of age, and resemble other Mongoloids much more than members of their own family.

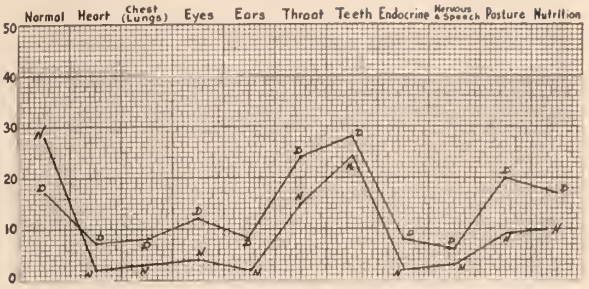

Chart 1.—A comparative study of physical defects in children in four development schools (Curve D) and in four normal schools (Curve N) in Los Angeles.

Another type frequently found among the mentally-defective children is the cretin—short stocky, dull—the subject of a disturbance in the function of the thyroid gland and the most amenable to medical treatment.

The third, easily-distinguishable type is the miscrocephalic, with his small head, fine features, spastic extremities, nervousness and squint.

Many children do not present clear-cut types, but attract attention by the lifeless indifference of their facial expression.

OTHER FACTORS

The mentally-defective children have a prevalence of physical defects and a lower vitality when compared with the normal.

Professor Eugene Schlezinger, of Zurich, Switzerland, finds, as the result of a study on 712 children made in 1936, that the majority of bright children have a very good physique, while the majority of dull children have a poor physique, but not always. Sometimes an antagonistic relationship exists, as if nature tried to produce equality by giving the mentally-weak a strong body, and vice versa.

Professor Otto Schneider, of Berlin, Germany, in an article in Gesundheit und Erziehung, of January, 1934, states that in a comparative study made on children in normal and development schools, he found defects in 63.1 per cent of boys in the development schools against 42.4 per cent of boys in the normal schools, and in 42.8 per cent of girls in the development schools against 26.1 per cent in the normal.

Vitality and resistance to diseases is also much lower in the mentally-retarded. Their mortality is from three to six times greater. Congenital heart disease and tuberculosis are the most frequent causes of early death.

According to Maltzberg, 25 per cent of mentally-defective children die between the ages of four and six; 50 per cent die between the ages of thirteen to seventeen, and 75 per cent die before the age of thirty.

The reason for such high mortality, according to Walter Fernold, is that the feeble-minded are also feeble-bodied. A study made in his school shows that four out of five children have defective teeth and tonsils; one out of four has defective vision; one in six has a defective heart and circulation, and one in seven has neurological defects.

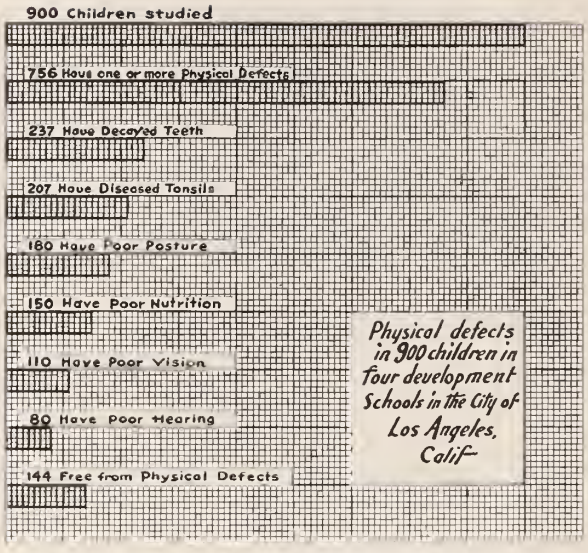

Chart 2.—Physical defects in 900 children in four development schools in the city of Los Angeles.

Doctor Lapage found, in his study, that 90.5 per cent of the mentally-retarded children had physical defects of some kind, and that 25 per cent had triple defects and a high mortality.

One of the most prevalent defects is poor eyesight, as caused by a squint, myopia, hyperopia and astigmatism. Defects in hearing are also numerous and frequently remain unrecognized for a long time, particularly in cases where deafness is limited to one end of the tonal scale.

Many children have congenital heart disease, with poor circulation and a tendency to a catarrh of the respiratory tract. They develop diseased tonsils, large adenoids, coryza bronchitis and a great predisposition toward tuberculosis.

Anomalies of the palate are frequent. A high saddle or V-shaped palate is found in from 61.7 per cent to 80 per cent of the mentally-dull children.

A good set of teeth is rare. The teeth usually are late to appear, are malformed, unhealthy, and decay early. The chewing of the food is unsatisfactory, and poor digestion, poor assimilation and malnutrition follow.

The function of the glands of internal secretion is disturbed in many cases, with the consequence of faulty metabolism.

PROPHYLAXIS

Can anything be done to prevent mental deficiency in children?

So far very few measures are known to be useful, and these are applied in this country and abroad. Sterilization of the known mentally-deficient will prevent this group from bringing forth children. But, according to the Burt certifiable defective form, these are but the fringe of a much larger portion of the population which includes the dull, the backward, the unemployable, the habitually delinquent—all of whom are subnormal in one direction or in another. It is debatable, as yet, whether the sterilization of such a large group is practical.

Segregation of smaller groups may prove successful, as substantiated by a very interesting incident described by David Starr Jordan in the *Training School Bulletin* of October, 1915.

In 1897, while visiting the Valley of Aosta, he saw hundreds of cretins—the severe military selection of this region having removed the healthy males, left the goitrous, and cretins to carry on, and they multiplied greatly. In 1910, when he visited the valley again, he found that the cretins had disappeared. By law they had been segregated and sent to an asylum, thereby being prevented from marrying.

Congenital syphilis as a factor of mental deficiency may be prevented by early and intensive treatment of the mother. Proper prenatal care and proper obstetrical procedures may prevent some deformities and birth injuries. Proper care of the infant may diminish the incidence of infectious diseases and accidents, so often responsible for acquired mental deficiency.

Proper birth-control method will, to a great extent, control the propagation of the unfit. Prevention is always the ideal procedure in medicine, but when it fails, the second best is cure.

PROGNOSIS AND TREATMENT

The essence of mental deficiency is that it is incurable.

We can no longer hope that the removal of the tonsils, the repair of the teeth, the provision of glasses and gland therapy will do much to lessen the number that is mentally backward. However, as a result of care, better tools will be used by those whose mental capacity is limited, and who need this help because of their affliction. There can be no doubt that the mentally-defective, just as the normal child, possesses potentialities and is capable of development, though at a slower rate of speed. For a long time it may be impossible to detect any signs of progress; then, suddenly, it may appear and develop.

The correction of physical defects in mentally-deficient children should be considered, first, as an essential prelude, and then as an accompaniment to the training of the mind. Drugs have no direct influence on the improvement of the mind in the majority of cases, with the exception of thyroid extract, known to be definitely helpful in cases of cretinism. The other glandular preparations so far do not show any beneficial effects on mentality. Antisyphilitic treatment will prevent the progress of the disease, but will not correct the damage existing. Operations are absolutely unjustified, as are also manipulations of the chiropractors or ostheopaths.

The removal of the physical defects, placement of the children in open-air rooms, milk, cod-liver oil, proper physical training and a large amount of rest will tend to produce a healthier body and thereby may also improve, if not the health, then perhaps the function of the mind.

This program is being tried at the present time in Germany with beneficial results. Doctor Schneider, in his preliminary report, states that the children who were treated according to the above-mentioned program were found, upon reëxamination, to be taller, to have gained weight, to have fewer infectious diseases, and a better attendance in school.

With these remarks embracing the etiology, clinical findings and treatment of mentally-deficient children, I will conclude the review of what is being thought and done for these children by the medical profession in this country and abroad.

FOUR LOS ANGELES DEVELOPMENT SCHOOLS

Within the past two months I have made a study of the health situation in nine hundred children in four development schools in Los Angeles.

Each one of these schools is representative of a more or less definite group, or combination of groups, of the Los Angeles population, and the children in all four of these schools are representative of any group which includes negroes, Mongolians, Mexicans, and Caucasians; the latter including Italians, French, Slavs, Jews and native sons and daughters of Nordic descent. These nine hundred children represent about 25 per cent of the development school population of Los Angeles. These four schools I have compared to four schools for the normal children in their respective neighborhoods. The four elementary schools have about 2700 children. Five of these schools have been under my supervision for several years, and I am well acquainted with the children who attend them. The information about the other three schools I received from health cards and from most valuable additional comments graciously given to me by their principals.

DATA CONCERNING NINE HUNDRED CHILDREN

In reviewing the material which I have collected for my study, I came across many rather interesting facts. I also found that there is a larger percentage of boys in the development schools, namely that there were 528 boys against only 372 girls among the nine hundred children studied, a proportion of four to three against three to two reported in the literature. Whether this happened because the male fetuses were more susceptible to injury and actually were injured, would be difficult to prove. For lack of time I did not make a thorough study of the heredity in each child in the development group, but one may infer that the hereditary factor of mental retardation was frequently present, since I found that 169 families, or 20 per cent, have more than one child in a development school. Many families have three children. Several have four and one family has five members in the same development school. One of these children is a niece to the other four. Many children have a father or mother, or both parents, who have attended development schools, sometimes the same school where their children are at present. Children from all strata of society can be found in these schools—Americans and foreigners of all nationalities. Mexicans prevail, no doubt for the simple reason that Los Angeles ranks second in the world in regard to its Mexican population, Mexico City being first.

All races and all school ages are represented.

Most of the children come from poor families, but many come from the middle class and a few from the rich. The small number from the well-to-do families is due to the fact that many of the parents who can pay prefer private training.

In September, 1936, 2,936 children were enrolled in the development schools against 156,992 in the elementary schools in Los Angeles, which makes the percentage of mentally-deficient children in the public schools equal to 1.9 per cent against 2 per cent for the United States.

The average daily attendance of the children in the development schools is lower than in the elementary schools. The normal children have a better attendance partly, perhaps, because they are more interested in their work, but mainly because the majority enjoy better health and are less susceptible to minor illness, so prevalent among the mentally-retarded. The greater susceptibility of the mentally-retarded is due to a poorer physical condition, as it may be seen from charts which I have made following my comparative study.

The curves on the chart of the final comparative study show that a higher percentage of children in the development schools suffer from each one of the eleven defects most frequently found during the physical examination. The same chart also shows that fewer children in the development schools are entirely free from defects. The differences, though, are not as high as one might expect and, I believe, for the following two reasons: First, because the curve of the physical defects in the normal children is too high, the number of decayed teeth and diseased tonsils is appalling. The second reason lies in the fact that the retarded children, because of their helplessness and the inadequacy of their parents, receive more medical care through the schools. They have comparatively more nurse service, they are usually transported to the clinics, or have the clinics brought to them in the form of the "healthmobile."

ASSOCIATED PHYSICAL DEFECTS

It is encouraging to find that the physical condition of the children in our development schools is not any worse, although it is far from being adequate. I found, among the nine hundred children studied, that 756 have physical defects, 234 have decayed teeth, 207 have diseased tonsils, 180 have poor posture, 150 have poor nutrition, 110 have poor vision, 80 are known to have poor hearing—the actual number of those who are deaf is probably much higher.

Each one of these defects will handicap a normal or even a bright child, and certainly is no asset to the mentally-deficient. There can be no doubt that the mentally-deficient, if left without training, will grow up to become a burden to society. To prevent such an occurrence, development schools, where education is offered to these children, have been organized. But how much can the child with limited mental capacity profit from this offer when he also happens to be partially blind or deaf; has a nasal obstruction with difficulty in breathing; has weak lungs, a bad heart and poor circulation; is malnourished, nervous; has decayed teeth with digestive disturbances, poor assimilation and a poor metabolism?

In order to help him receive whatever knowledge and training his mentality is capable of absorbing, we must endeavor to correct his physical defects and do it quickly.

A SUGGESTED HEALTH PROGRAM

I wish to suggest, for this purpose, the following health program which should be possible to introduce in each school; a program which should provide, in addition to health education, health practices in school:

A special person, a matron, should be assigned to every development school to take care of the physical needs of the children. All who are nervous, all who have serious visual defects, all who are borderline tuberculosis cases or are tuberculosis contacts, and all who have heart defects should have a rest period daily, preferably in the open air.

All those who suffer from various forms of malnutrition, and do not have sufficient food at home, should receive lunch, milk, and cod-liver oil in school, also breakfast when possible.

In charge of this work a nutrition teacher is most desirable.

Corrective physical training should be given to all the children with postural defects and poor coordination. The exercises should be made interesting, not tiring, and given systematically. This type of physical education will tend to develop the capacity of the chest and thus improve the condition of the lungs and heart, and also train the muscles to better performance of manual work.

THREE CARDINAL ELEMENTS IN THE HEALTH PROGRAM

Nutrition, rest and corrective physical education are the three cardinal points of the health program which should be, and can be carried out in school. Such a program we have in one of these schools under the supervision of the matron. The children rest an hour daily and receive milk, lunch and cod-liver oil. Since September, 1936, twenty-eight children attended the rest class, twenty-four attend it at present.

The maximum gain in weight was 13½ pounds, the average gain was 5.2 pounds for those who attended the class for five months, and 1.7 per cent for those who attended the class for two months.

The physical condition and achievement in school improved in the majority of cases.

A more extensive program is carried on in another of these schools, under the supervision of one of the teachers and under the direction of the principal.

Some fifty-five children were assigned through the year, and thirteen of these children receive in school, breakfast, nutrition, and lunch, while nineteen receive nutrition, and twenty-four their breakfast. The maximum gain was twenty-five pounds, the average was 7.6 for those who receive breakfast, and 6.05 for the others.

The school physician should be given sufficient time for a thorough study of each child, and the school nurse should have time enough to follow up the cases.

The school should be able to offer to the children transportation to the clinics when the parents cannot take them. A "healthmobile" on the school premises is most desirable.

It is true that under this program not all defects can be corrected; it is true that even the correction cannot alter the mind of the child, but it is also true that the mentally-deficient child, when relieved from his physical handicap, can always find better application for his limited ability and once in a while may prove that he is not so dumb.

Mental deficiency cannot be cured, but can be made less disabling.

In conclusion I shall paraphase the quotation from Dickins which I have used as my theme and say:

"Try not to associate *mental* defects with bodily, my good friends, except for solid reasons, but when physical defects are found always correct them quickly."

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DISCUSSION

Ellen S. Stadtmuller, M.D. (Chief, Bureau of Child Hygiene, California Department of Public Health, San Francisco).—In a series of lectures delivered by Dr. L. Emmett Holt some years ago, in which the nutritional status of children was discussed, he pointed out that superior intellectual attainments and physical vigor usually go hand-in-hand. It is interesting to note that Doctor Goldwasser emphasizes the reverse picture in connection with mental defectives; that is, that the feeble-minded are usually also feeble-bodied, and are more susceptible to intercurrent disease. This may, of course, be due to the lessened vital resistance of the whole organism, but it may also be due to a lack of intelligent understanding of health rules and, where feeble-mindedness is a family problem, to a lack of intelligent care.

Although the following sentence is included, "This statement does not imply that the majority of mentally deficient children are born of mentally deficient parents," Doctor Goldwasser produces figures to show that, in many instances, one parent of these children may be mentally below par. She also shows the hereditary strain by figures which she cites of multiple instances of mental deficiency found in one family occurring in the group of children under consideration. The high incidence of glandular disorders found among this group is in line with the modern conception that internal secretions are a determining factor in the mental ability and competence of the organism.

In addition, 84 per cent of the 900 children reviewed show physical defects. These figures may be contrasted with those available for young California children in rural areas. According to examinations recently conducted by the staff of the Bureau of Child Hygiene, State Department of Public Health, 65.7 per cent of young children in public schools show physical defects. Among American migratory children recently studied in the San Joaquin Valley, 91.3 per cent of a young group, consisting of 197 children, showed defects. A large group of children surveyed in Pennsylvania during the year 1932 showed from 15 to 17 per cent suffering from malnutrition, even in counties where agriculture was the chief industry. A recent survey of 14,591 children given audiometer tests in the mountain counties of California showed 1,468, or slightly more than 10 per cent, with diminished hearing. Similarly, for the other physical defects cited, such as decayed teeth, diseased tonsils, and poor posture, the percentage in Doctor Goldwasser's group does not appear to be higher than those in any group of school children studied.

It is true that these children, being much less able to understand their own needs and much more difficult to educate, are in need of special protection; but, if good health supervision and corrective work were available for all children in the schools, good care for the mentally defective would be available as well.

There is this special point to be stressed in considering better physical conditions for such a group of children: By the investment of present sums in bettering their physical condition, we undoubtedly assist them to receive all the training which their mental capacity allows them to absorb, and by so doing we prevent the greater expense of dependency in future life.

Sven Lokrantz, M.D. (858 Manning Avenue, Los Angeles).—Whatever the mental condition may be, the physical welfare of the child must be considered. Subnormal children who have physical defects should have these defects corrected, if possible, and thereby we may reduce the mental retardation.

I feel that the health program outlined above for our mentally handicapped boys and girls is very worth while and of greatest importance in our educational program for these mental defectives. Much is still to be learned about the correlation between health and mental fitness. The research done by Doctor Goldwasser is a fine step toward the promotion of health among our mentally retarded. It constitutes a challenge to physicians and educators everywhere to aid in making these health facilities obtainable to these subnormal children that they may enjoy greater comfort, be less a burden to society, and lessen the physical retardation superimposed on a dull mind.

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A. J. Rosanoff, M.D. (1908 Wilshire Boulevard, Los Angeles).—Doctor Goldwasser's investigation has revealed that 1.9 per cent of the children enrolled in the elementary public schools of the city of Los Angeles are in the development schools. It may be judged that the true incidence of mental deficiency among children of elementary-school ages is higher than this figure would indicate; for not all mentally deficient children are sent to the development schools. The lowest-grade cases, especially if complicated with crippling palsies, epilepsy, etc., are necessarily excluded from the schools; many of the higher-grade cases are kept in the regular classes.

The investigation has revealed, further, that the children in the development schools are further handicapped, as a group, by an abnormally high incidence of physical defects, such as infected teeth and tonsils, poor general nutrition, impaired vision and hearing, and the like.

Such findings are not new either to physicians or to educators; but it is probably worth while to bring them to attention as problems existing today in our own community and calling for some such preventive and remedial measures as those suggested in the paper.

SKIN AND CHEMICAL TESTS FOR PREGNANCY*

By Robert D. Dunn, M.D.
Paul Hoffmann, M.D.
and
Florence Fouch, M.D.
San Francisco

Discussion *by Daniel G. Morton, M.D., San Francisco.*

Of the recent tests for pregnancy, the chemical method of Visscher and Bowman,[1] introduced in 1934, and the intradermal method described by Porges and Pollatschek,[2] in 1929, attracted our attention because of the ease with which these tests can be performed, and the small cost they entail to the patient. We, therefore, undertook to investigate the reliability of these tests to obtain first-hand information. Both have been reported elsewhere by us, and both have been given support by various observers, whose results we shall refer to later.

VISSCHER AND BOWMAN METHOD

Visscher and Bowman based their test on the presence of the gonadotropic hormone in the urine of pregnant women. The technique was carried out by us as follows: To one cubic centimeter of urine are added one drop of one per cent hydrogen peroxid, five drops of one per cent aqueous solution of phenylhydrazin hydrochlorid, five drops of five per cent aqueous solution of methyl cyanid, and five drops of concentrated hydrochloric acid. The mixture is put into a boiling-water bath for twenty-five minutes. A test positive for pregnancy shows a russet color and a flocculent precipitate, and a negative reaction shows a straw color either clear or with a powdery precipitate.

CLINICAL MATERIAL FOR THE TESTS

We have employed this test in 476 instances, divided into two series. The first included 250 late pregnancies, of which 212 gave a positive reaction, an accuracy of 84.8 per cent. Comparing the Visscher-Bowman method with Friedman tests in sixty-five early pregnancies, we found thirty-six positive chemical tests in forty-one positive "Friedman's," and twenty-one negative chemical tests in twenty-four negative "Friedman's," 87.6 per cent correct. Of nonpregnancy urines, 45.2 per cent showed false positive reactions. This large number of false positives occurred principally in febrile patients, and we assumed that these were due to an increase in catabolic substances in the urine. In this original series we noted that urines of low specific gravity (under 1.015) gave many false negative reactions, whereas in urines of higher concentration errors were less prone to occur. In the later series we discarded low specific gravity urines, hoping to reduce this error. In eighty-one late pregnancies, seventy-one (87.7 per cent) were correct. Eighteen positive Friedman tests included fourteen positive and four negative chemical tests, an accuracy of 77.8 per cent. These figures, although showing an improvement in the late pregnancies (87.7 per cent from 84.8 per cent), were less accurate in the early pregnancies (87.6 to 77.8 per cent). This indicated to us that the elimination of the apparent source of error (low specific gravity) did not influence to any great degree our original figures.

RESULTS NOTED IN THE STUDY

Our results are at considerable variance with those of the majority of other observers, who found the Visscher-Bowman test accurate in from 88 to 100 per cent of cases. The originators of this test found an accuracy of 93 per cent in known pregnancies, and 83 per cent in early pregnancies. In eighty-three patients investigated by Dolff,[3] 96 per cent of late pregnancies and 95 per cent of early pregnancies were correct. He was the first to call attention to false negatives in urines of low specific gravity, and false positives in febrile patients. Menken's[4] very small series gave correct reactions in 100 per cent of early pregnancies and 88 per cent of late pregnancies. Recent reports by Dodds,[5] Wiesener,[6] and Friedrich[7] credit the test with an accuracy of 90 per cent or better.

FINDINGS OF OTHER OBSERVERS

Sheehan,[8] in a very recent paper, reported a considerably lower percentage of accuracy (about 75 per cent) in a group of pregnancies. For com-

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parison he tested men, and children of both sexes, obtaining results positive for pregnancy in 60 to 80 per cent of these. Urines collected from fifty-six patients just before delivery gave only 34 per cent of positive reactions. Because of the large number of positives in the nonpregnant group, he concluded that a substance present in normal urine was responsible for the color reaction of the test. He found that urinary pigment, urochrome, gave the changes ascribed to the test in degrees proportional to its concentration in the urine. Furthermore, the hormones present in pregnancy urine (estrin and prolan) did not give the positive reaction. In his discussion he referred to Drabkin's observations that urinary pigment is increased in acidosis and in pregnancy, but decreases before parturition, thus explaining the low percentage of positive reactions observed in urines taken just before delivery. Sheehan also investigated the relation of specific gravity to the results of the test, and found that urines of a specific gravity of from 1.001 to 1.010 gave weak or negative tests, from 1.010 to 1.022 moderately positive reactions, and over 1.022 strongly positive reactions, varying with the normal color of the urine, and thus in proportion to the amount of urinary pigment present. This work perhaps explains the relatively frequent occurrence of false negatives obtained in urines of low specific gravity. Sheehan came to the conclusion that the Visscher-Bowman test represents a change in normal urinary pigment when acted upon by a strong mineral acid, and that it is not a test for pregnancy.

Quite in opposition to this opinion is Friedrich's contention that prolan (chorionic hormone), when acted upon by hydrochloric acid, not only gives the color reaction and precipitate described by Visscher and Bowman, but is the only hormone which will do this. In addition, he pointed out that a strongly positive test for pregnancy is obtained in conditions marked by an unusual amount of gonadotropic hormone, *i. e.*, carcinoma, menopause. These false positives are also sometimes found with the accurate Aschheim-Zondek and Friedman tests. Dolff, likewise, tested the Visscher-Bowman reaction, using the gonadotropic hormone alone, and seemed satisfied that the reaction was dependent upon it.

Sheehan's statement that the intensity of color of the urine is comparable to the intensity of color developed in the test was recognized by us. But we frequently obtained an apparent positive color reaction unaccompanied by a dark precipitate, and we interpreted such results as negative. In certain dilute urines a heavy precipitate occurred, although only a moderately dark color reaction, and we called these positive reactions. Another source of error was reported by Dolff and substantiated by us, namely, a high number of incorrect positive reactions in febrile patients. He thought this due to the excess products of catabolism. Sheehan's statement that urinary pigment is increased in acidosis may be the true interpretation of this.

INTRADERMAL TEST

The intradermal test for pregnancy with chorionic hormone, proposed originally by Porges and Pollatschek, is dependent for its reaction upon the presence of chorionic (anterior pituitary-like) hormone in the blood of pregnant women. In a later report these investigators announced that the test was not sufficiently specific to be of clinical use. However, Gilfillen and Gregg,[9] Gruskin,[10] and Schwartz [11] did not share this opinion because of their excellent results with this test. Like Gilfillen and Gregg, we have used Antuitrin-S, but have not obtained satisfactory results. Gruskin and Schwartz used a placental antigen prepared by the former.

We have tested 211 patients, 157 of whom were known to be pregnant. Essentially, we followed the technique employed by Gilfillen and Gregg. Two minims of Antuitrin-S are injected into the skin of the flexor surface of the forearm. The resultant wheal should be round and have the appearance of pig skin. The reaction is read at two fifteen-minute intervals. A test negative for pregnancy is shown by an area of erythema up to four centimeters, with pseudopodia, indicating that no chorionic hormone is present in the patient. An absence of a local erythema indicates the neutralizing effect of chorionic hormone and, therefore, a positive test for pregnancy. Our results were as follows: Of 157 pregnant patients, 71 per cent gave a correct reaction, and of fifty-four nonpregnant patients, 80 per cent reacted correctly. Occasionally, latent skin reactions were seen by us, but they are not significant so far as the immediate reading of the test is concerned.

Shortly after the completion of our study, Weisman and Yerbury [12] reported a group of seventy-four observations, the results of which compare closely with ours. Both studies show a high percentage of error, and are more in keeping with the reports of the original German investigators than with the excellent results reported by the American observers mentioned above.

SUMMARY AND CONCLUSIONS

From the reports on the Visscher-Bowman and intradermal tests for pregnancy quoted here, one must conclude that the clinical application of these methods is unreliable. It is evident from the conflicting viewpoints expressed in the literature that the chemical reaction of the Visscher-Bowman test is not as yet understood, and until a true explanation of the chemistry can be found, further clinical studies seem futile. The intradermal test, although promising from a theoretical point of view, in our hands has proved disappointing.

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DISCUSSION

DANIEL G. MORTON, M. D. (University of California Medical School, San Francisco).—Thanks are due to the authors of this paper for bringing us up to date on the status of the Visscher-Bowman and intradermal test for pregnancy. The results of others, as well as their own work, would seem to indicate that neither of these tests are sufficiently accurate to make them of much clinical value. In spite of the tremendous amount of work which has been done on hormones, we still remain abyssmally ignorant of the true chemistry and physiology of these substances. Until our knowledge has been materially broadened we are likely to flounder around, making many false starts. It looks as if the rabbits and mice will continue to lead the field for some time to come. This is not strange, for *biologic response* is likely to be the most profitable and reliable source of information while one is dealing with complex or little understood substances.

SCLEROMA IN CALIFORNIA*

By HARRY E. ALDERSON, M.D.
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DISCUSSION *by Rea E. Ashley, M.D., San Francisco; Arne E. Ingels, M.D., San Francisco; Otto P. Diederich, M.D., Fresno.*

SCLEROMA ("Rhinoscleroma"), a chronic infectious granulomatous disease, for a long time was supposed to exist only in southern Europe, but many cases now have been reported in Austria, Hungary, southwestern Russia, Egypt, Italy, Mexico, Central America, California, and other parts of the United States.

CLINICAL PICTURE

Clinically, scleroma is characterized by the appearance, first, of fairly hard, smooth nodules in the anterior nares. This growth spreads gradually until, in many cases, protruding rounded smooth masses with intact skin surface project from and close the nostrils. It is this part of the process that gave the disease its original name of rhinoscleroma, but there are many cases with mouth lesions only; hence the suggested name, "scleroma."

DISTRIBUTION

Rhinoscleroma was first reported by Hebra in 1870, and in 1882 von Frisch discovered the organism to which his name has been given. A large number of cases have been reported in the European literature, but until recently relatively few in ours. Possibly the increasing number of cases recognized in America can be attributed to more widespread knowledge of the disease and consequently greater watchfulness on the part of the profession. Most cases, naturally, are seen by otolaryngologists and dermatologists. The first three examples recognized in California were reported by the writer,[1,2,3] and the fourth by E. M. Bingham and O. T. Cutler.[4] All of my cases had nasal, mouth and throat lesions, and one of them had internal lesions only, the outer nose presenting a normal appearance.

I have been told by patients and by physicians that many cases with mouth lesions only are seen in Mexico, San Salvador and other Central and South American countries. These may be mistaken for syphilis or tuberculosis. The fact that the disease often is unnoticed for a long time makes it possible that we may have many more incidences than we realize in California and Mexico.

The disease is seen in patients mostly between the ages of fifteen and forty, in both sexes and for the most part in individuals whose personal hygiene is poor. My former associate, Dr. Esteban Reyes of San Salvador, writes that the disease is quite common in his country. He states that many cases are seen among anilin-dye workers. In the process of preparing indigo, the plant juice is placed in open tanks for fermentation, allowing flies to swarm over them and to feed on the fermenting liquid. Thus, the disease possibly may be carried by flies. Years ago, when the anilin factories there were flourishing, the disease was very prevalent, but since many factories have closed down the number of cases has diminished greatly. In a more recent report, Doctor Reyes states that, after making investigations of the anilin dye material, extending over several months, he has had completely negative results. He concludes, therefore, that his original theory was wrong and that the dye is probably not a factor. Doctor Reyes has found that intravenous injections of Lugol's solution, the administration of tartar emetic, radical surgical measures, electrocoagulation, and roentgen therapy, all give fairly good results. Roentgen therapy is more efficacious than any form of treatment so far. Doctor Reyes also reports that pure cultures of the Frisch bacillus are very difficult to obtain. He has found organisms in smears from healthy looking mucous membranes.

NATURE OF THE LESIONS

As stated before, the lesions usually start within the nostrils and spread very gradually. They may extend backward into the larynx, pharynx, trachea, or even the bronchi. A case has been observed where lesions were found postmortem in the mucosa of the cecum, ascending colon, from the ileocecal valve to the hepatic flexure.[5] When the process extends outward over the nose and upper lip, the picture is very characteristic and not likely to be mistaken for anything else, particularly when there are no ulcerations. Ultimately, the mucous membrane process results in atrophy and deforming scleroses, leaving bone and cartilage unaffected, as a rule. Occurring on the palate, the growth may force some of the teeth out of place.

DIAGNOSIS

The diagnosis is readily established histologically and by finding the bacillus of Frisch, although the latter is not essential. There are cases on record where the organisms were not demonstrated in cultures.[6] In my last case this occurred, but they were readily seen in sections of the tissue. Animal

* Read before the Dermatology and Syphilology Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.

Fig. 1, Case 1.—Ulceration on nasal lesion, due to biopsy wound.

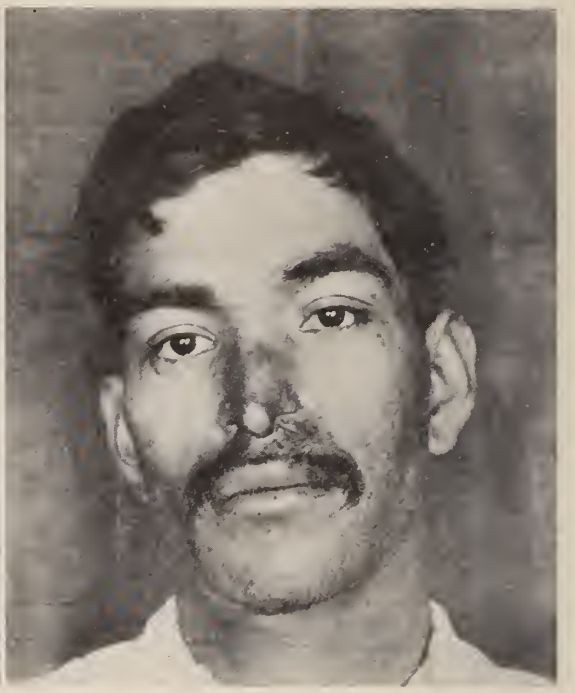

Fig. 2, Case 1.—Showing scarring following eradication of lesions by roentgen ray.

inoculations so far have been unsuccessful. The bacillus of Frisch is very similar to the Friedlander bacillus. The two are thought to be modifications of the same organism. Ormsby's description of the organism is as follows:

"It is a short bacillus with rounded ends, and enclosed in a gelatinous capsule measuring 2 microns in length and 0.5 micron in width. It is arranged singly, in pairs or groups, and lies in the gloea of a Mikulicz cell, or free in lymph spaces. It presents a close resemblance to the pneumococcus of Friedlander and Bacillus ozenae, with which it is by some considered identical. Perkins, in a study of the organism of rhinoscleroma, classes it as a member of Bacillus mucosus capsulatus group, in which are included Friedlander's bacillus and Bacillus ozenae. He considers that the organisms found in the nose in this disorder vary in different cases, though of the same general group, and that the so-called rhinoscleroma bacillus has no etiological relation to the disease, but is rather a secondary infection. Morris and Dore found a short, coccoid, Gram-negative, capsulated bacillus, corresponding to the bacillus of Frisch and resembling Friedlander's pneumobacillus."

Fig. 3, Case 2.—Scleromatous lesions on hard palate, inside nose, pharynx and larynx. None on outer nose.

HISTOLOGY

Histologically, the process is a granuloma. There are many infiltrating plasma cells in the corium, and there is hypertrophy of the collagen, particularly at the periphery of the growth. The most conspicuous element in the lesion is the "Mikulicz" cell, which is also seen in leprosy, glanders, bubonic plague and a few other conditions. This cell is from fifteen to twenty times the size of a red blood cell and contains one or two nuclei, usually toward the border. The cell protoplasm is replaced by a fine, foamy network, for which it is called "lace" or "foam" cell. It usually contains Frisch bacilli, and is supposed to be a degenerative form of mononuclear leukocyte. There is also seen among the infiltrating cells the so-called "Russell's body" of Unna scattered throughout the lesion. These bodies take the acid dye deeply. They contain no organisms.

REPORT OF CASES

Briefly, the reports of my three California cases are as follows:

Case 1.—Stanford history No. 1228;[1] male; age, 24; Mexican; laborer. Has never resided outside of northern Mexico. He came direct to San Francisco recently.

Family History.—Negative.

Past Health.—Never ill before (as far as he knows he has never been exposed to anyone with lesions resembling

Fig. 4, Case 3.—Scleroma showing palatal and nasal lesions.

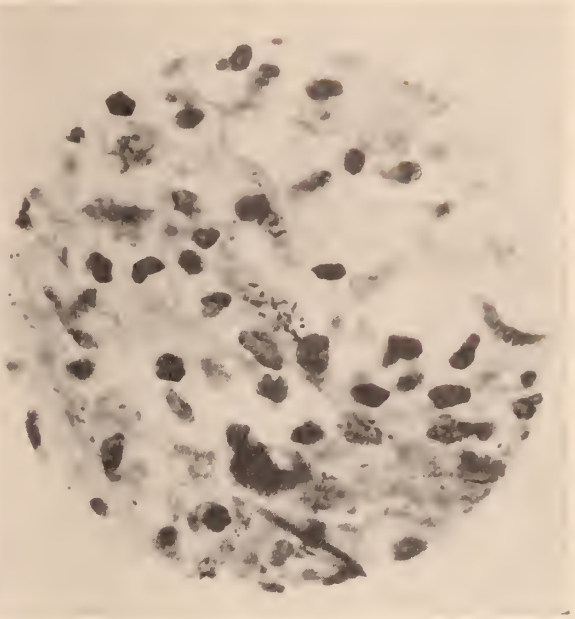

Fig. 5, Case 3.—Scleroma showing Frisch bacilli and Mikulicz cells in section.

in any way those on his nose). No history of syphilis. Wassermann was negative.

Present Condition.—Entire left nostril occluded by a solid, hard growth covered with intact epithelium. On outer side of nose in depression above left ala, a similar pea-sized growth. Left tear duct occluded by similar growth. The posterior half of hard palate has raised thickened mucous membrane, covered with superficial ulcers. Some of these superficial ulcers are on upper part of both tonsils.

Clinical Diagnosis.—Rhinoscleroma.

History.—Seven months ago a small red papule appeared on left side of nasal septum. He picked this frequently. It gradually increased in size until it completely occluded the nostril, involved the hard palate (no perforation), and extended up left tear duct.

A biopsy was taken from the nasal growth, causing the ulceration. During the past three weeks the growth has returned in this cavity. Bacteriologically and histologically, the diagnosis is established.

A pure culture of a Gram-negative bacillus was found in scrapings. This organism, by the ordinary differentiating cultural methods, resembled the pneumobacillus of Friedlander.

The patient was treated with an autogenous vaccine, resulting in temporary improvement. Subsequently, deep roentgen therapy apparently eradicated all the lesions, external and internal. The patient later disappeared, so it is not known whether or not the cure was permanent.

* * *

Case 2.—Our second case[2] was reported as follows: E. F., a mechanic, male, aged 39, unmarried, a native of San Salvador, complained of hoarseness and difficulty, of six years' duration, in breathing. The family history was unimportant. The patient was born in San Salvador. He had always been strong and well. About twenty years before he consulted us he had had a genital "chancre," with no sequelae that were recognized.

In 1921 he fractured his tibia and made a good recovery. Fourteen months before he had a boil on the right leg, which soon subsided. There was no history of past cardiovascular, respiratory, or gastro-intestinal disease. His digestion had always been good. He had not had a genito-urinary disease.

About six years before we saw him, a choking feeling in the throat and dyspnea gradually developed; two years later the condition had become severe. At times the patient had severe choking spells with pronounced dyspnea. There was a constant hacking cough, producing thick, tenacious sputum. This condition did not affect his digestion.

Examination by several nose and throat specialists resulted in a clinical diagnosis of syphilis, in spite of eight negative Wassermann tests. Examination of the sputum gave negative results, but Frisch bacilli were not looked for. The patient was given eight injections of neoarsphenamin and twelve of bismuth, and a course of inunctions with mercury and potassium iodid. This treatment did not have the slightest effect on the disease.

An examination of the nose and throat by Doctor Bacher, in 1926, revealed that the right nasal vestibule was greatly narrowed by thickening of the septum inferiorly, and by an easily bleeding polypoid mass superiorly. There was a similar red, soft, thickening on the left side of the nasal septum inferiorly. There was no growth around either outer nostril. The uvula and the adjacent part of the soft palate were destroyed by the process, and the soft palate was adherent to the posterior pharyngeal wall, admitting only a small probe to the nasopharynx.

In March, 1931, this condition and the presence of a reddish thickening of the hard palate were noted. Biopsy was performed on a specimen from the hard palate, and smears and scrapings were made. Examination of the latter, as well as cultures, established the diagnosis of rhinoscleroma. The patient's general physical condition was favorable.

Microscopic Report.—Tissue from the hard palate was examined. Epidermis: There was marked thinning of the entire layer, to the extent that there were only one or two rows of cells in a few places. Nevertheless, an occasional greatly elongated interpapillary process existed. Evidence of the underlying pathologic condition was entirely lacking. Subepidermal structure: The corium and underlying structures suggested a chronic inflammatory process characterized by the growth of new connective tissue, and the presence of innumerable plasma cells in all stages of development and degeneration. Closer observation showed that the infiltration was also composed of Mikulicz cells, colloid or hyaline cells, endothelial cells, lymphocytes, polymorphonuclears, and a few Russell's fuchsin bodies.

While the tissue was extremely vascular and the lymphatic spaces noticeably dilated, perivascular infiltration was not a characteristic feature because of the chronicity of the process and the innumerable cells present.

Countless numbers of Mikulicz cells were scattered profusely throughout the tissue. These large, pale, swollen cells showed little or no tendency to stain with eosin, and had a protoplasm foamy or dropsical in appearance, which in many instances contained a variable number of Frisch bacilli. These bacilli were short, the size being about 2 by 5 microns. They were enclosed in a gelatinous capsule, but

this was less readily apparent when they were viewed in the tissue. The bacilli occurred not only in the protoplasm of the Mikulicz cell, but free in the lymph spaces.

The colloid type of cell, with its compressed nucleus pushed toward the periphery in the earlier stages of its development, and sometimes absent at the time of its rupture, was present, but not in the same abundance as the Mikulicz cell.

Examples of the Russell's fuchsin bodies, staining a yellowish or yellowish red with eosin, were found free in the tissue singly and in groups up to eight.

The entire process seemed to be one of replacement, few of the original structures being present. Elastic fibers were entirely lacking. The chronicity of this case is brought out by the fact that it is only in the later stages that one finds such a thick, collagenous growth of connective tissue.

A histopathologic comparison of this case with the one that I first reported brings out the fact that, while the bacilli of Frisch within the tissue are more numerous, fewer are contained within the Mikulicz cells. The proportion of plasma cells to the other cells was greater in the earlier case.

Treatment.—Roentgen treatment was given by Dr. Robert Newell of the department of radiology, Stanford University. Deep roentgen therapy at an effective wavelength, 0.17 angstrom unit (moderately hard x-ray—150 or 100 r), was given alternately to each side of the neck and face daily for twenty-four days.

Course.—On July 13, 1931, it was noted that the patient showed marked improvement and felt better in every way. He was now able to do light work. He was still hoarse, but there was no stridor. The pharynx appeared the same. In September, 1931, at the time of writing, the patient was apparently well, with the exception of hoarseness resulting from much destruction of tissue.

Note.—On March 24, 1932, the patient called at the clinic, presenting a recurrence of the condition of several days' duration. There was evidence of activity on the hard and soft palate, and along the scars of the posterior pharynx. Roentgen treatments were instituted again the following week.

* * *

Case 3.—Our third case record[3] (which will appear shortly in the *Archives of Dermatology and Syphilology*) follows:

Mrs. B., Stanford History A43004, aged 29, white, American housewife, was referred to us by Doctor Diederich of Fresno, in 1934. She presented an enormous nodular growth on the nose and upper lip and hard palate, as shown in the illustrations. The left nostril was almost completely obstructed. There were palpable glands in the submaxillary and anterior cervical regions. It is interesting that the first lesions noticed were seen on the hard palate in 1921, the lip and naris lesions in 1927, and the external nasal growth in 1930. It is possible, of course, that small intranasal lesions were present and unnoticed before the palatal growth was discovered.

The patient had lived as a child in Arkansas and Oklahoma, but since she was twelve years of age she has resided in the San Joaquin Valley, where there are many Mexican laborers.

Her past and family histories present nothing significant. She has three healthy young children. Physically, she is rather obese and in apparently excellent health, barring her rhinoscleroma.

Repeated blood counts, urinalyses, blood Wassermanns, stool and gastric analyses, gastro-intestinal x-ray examinations, and attempts to visualize the gall-bladder—all gave negative results. Her B. M. R. was minus 8.

In March, June, and November, 1934, she was given heavy superficial and deep roentgen therapy. This was repeated in May, 1935. On this occasion, the roentgenologist gave her nupercain ointment to try to modify an expected x-ray reaction. Instead, it was followed by violent inflammation, with much edema extending over the "flush area" of both cheeks. After this acute inflammation had subsided, extensive nodular areas of rhinoscleroma remained, involving most of both cheeks. All of the areas persist as they were in 1935, excepting that the nose is much smaller and the cheek lesions have flattened down considerably.

Repeated attempts to grow the organism have been unsuccessful, but the Frisch bacilli were readily demonstrated in stained sections. Sections were stained for acid-fast organisms, but none were found.

Dr. Arne Ingels reports his studies of the sections as follows:

"The epidermis shows thinning (in places only two to three layers of cells). No hyperkeratosis nor parakeratosis is present. A moderate inter- and intracellular edema is seen. The regular arrangement of the epithelial cells, including the basal cell layer, is maintained. Melanin-stained sections (Becker stain) show absence of pigment in the basal cell layer.

"The retepegs are almost completely obliterated. A narrow zone, corresponding to the papillary layer, is comparatively free from inflammatory changes. Otherwise the cutis shows dense masses of round-cell infiltration, consisting mainly of lymphocytes. A few mast cells and histocytes are seen. Some large areas show a lighter appearance, due to the frequency of Mikulicz cells. Gram-stained sections show many Gram-positive cocci rod-shaped, encapsulated Frisch bacilli, both in the Mikulicz cells and extracellularly. Giant cells, of the foreign body type, are seen in the vicinity of the foam cells, whereas no areas of caseation nor any tubercle formation are present.

"Stains for acid-fast bacilli are negative. The abundance of sebaceous glands in the sections is explained by the site of the biopsy, *i. e.*, the vicinity of the nose. *Diagnosis:* Rhinoscleroma."

Our experiences, and the fact that there are many Mexican laborers, who may be carriers, in the Southern California valleys, make us feel that scleroma may be more prevalent here than is realized.

490 Post Street.

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DISCUSSION

Rea E. Ashley, M.D. (384 Post Street, San Francisco). I consider it a great honor to be asked to discuss Doctor Alderson's paper before this section of dermatologists.

In the main, rhinologists know little about diseases of the skin. This particular disease, however, does come within both specialties, since it primarily involves the skin about the nose and the mucous membrane of the upper respiratory tract.

The usual site of the pathology is in either the nose, nasopharynx, or larynx. Deeper lesions in the trachea and bronchi are always secondary to primary lesions of the nose, nasopharynx, or larynx. It is interesting to note that a lesion may occur in the nose and a second, similar lesion in the larynx, while the intervening mucous membrane may be entirely normal.

It is a disease of filth, found only among patients born out of the United States or born of foreign parentage. Chamberlin, in a recent exhaustive review of the literature, was unable to find a single case report of the disease occurring in native Americans.

Knowing I was to have the privilege of discussing Doctor Alderson's paper, I made inquiries at various clinics, which I recently visited, regarding the prevalence, treatment, and results obtained in this disease. While no statistics were available on such short notice, I received

enough information to convince me that the disease is far more common than the literature would lead one to believe.

Figi, at the Mayo Clinic, has treated several cases during the past few years. X-ray, radium, and electrocoagulation have been more or less successful methods of treatment. Fürstenburg of Ann Arbor sees very few cases of scleroma. Hays Martin of Memorial Hospital, New York City, has several cases under treatment at the present time. His methods are similar to those of Figi's, and his results about the same. Jackson of Philadelphia will soon report several cases of laryngeal scleroma. Lejune has seen no cases at Tulane Clinic, New Orleans. Jessburg has four cases under treatment at the present time in the Eye and Ear Hospital, Los Angeles—two of which cases are in the nose and two in the larynx. Proper doses of deep x-ray have proved very successful in his hands.

In 1932, before the Western Section of the Triological Society, Dr. Eugene Lewis of Los Angeles presented two cases of rhinoscleroma. Both patients were Mexicans. He subsequently reported marked improvement in both cases following systemic treatment. The first patient was apparently cured after one year's treatment, and the other much improved after eight months' treatment. These results lead Lewis to conclude that the systemic factors of etiology seem of greater importance than local pathologic factors, and that aims at treatment should be directed toward systemic changes rather than toward local therapy.

As Doctor Alderson states, the disease, although considered rare, is either becoming more prevalent or is more frequently recognized, due to better and more careful diagnosis.

Much experimental work is still necessary on this disease, since the etiology is not definitely determined, nor is the treatment particularly satisfactory.

I wish to compliment Doctor Alderson on the thoroughness with which he has presented this subject, and thank him again for the privilege of discussing it.

❦

Arne E. Ingels, M.D. (490 Post Street, San Francisco). As stated in the paper regarding the epidemiology of rhinoscleroma, this disease prevails under poor hygienic conditions, which it has in common with Hansen's disease, lues, yaws, and skin tuberculosis, also sarcoid. These same diseases may at times offer similarities confusingly alike, not only clinically but also histopathologically. All may start out on any part of the body surface, and, more important, all may show the initial lesion on the mucous membranes. The third case mentioned in the report was quite soft to the touch; in color consistency and outline, very similar to a tuberous leprosy, which we had a few days ago. The Hansen's disease, however, was diagnosed from nasal scrapings and acid-fast bacilli in sections.

Histopathologically, the initial lesion in all of them may present a picture of the cutis which even Oscar Gans admits is not diagnostic. Diagnosis rests with the demonstration of the virus. In the incipient stage they all may form masses of round cells where lymphocytes, leukocytes, plasma cells, mast cells and degenerated cells are thrown together without specific features.

The Mikulicz cells, which are degenerated, connective cells, are not diagnostic. Identically looking foam cells are found in leprosy, the so-called lepra cells, the foam cells in sarcoid. The Russell's hyaline bodies are nonspecific hyaline bodies also found in Hansen's disease. Occasional caseation and necrosis in rhinoscleroma and Hansen's disease simulate tuberculous processes.

The acid-fast bacilli in Hansen's disease usually occur in great masses, arranged in "cigar bundles." They may occur scantily, however. An additional feature is that they occur in the plain acid-fast forms, as well as in presumably degenerated, nonacid-fast forms, which in turn may simulate the encapsulated Frisch bacillus. This latter is notoriously multiform in shape.

Some investigators hold that Hansen's bacilli are encapsulated, so the degenerated bacilli not taking acid-fast stain may well be taken for Frisch bacilli.

The positive antigen antibody tests are of decided value.

❦

Otto P. Diederich, M.D. (Mattei Building, Fresno).—My experience with rhinoscleroma is limited to the one case that Doctor Alderson is reporting. This patient was referred to me, with a diagnosis of tuberculosis of the skin made by a well-known pathologist, who had examined tissue from the nose, as my clinical diagnosis was rhinoscleroma. I had him review the sections thoroughly with this in mind, but he was unable to verify my diagnosis from the sections he had. I was unsuccessful in proving the case rhinoscleroma, so referred the patient to Stanford University for further study. I recently saw her, and the disease has spread to involve the entire nose and both cheeks. Treatment with x-ray, arsenic, tartar emetic, and gold have been unsuccessful.

THE LURE OF MEDICAL HISTORY†

THE SELECTION OF THE SAN FRANCISCO MEDICAL CENTER SITE*

By Henry Harris, M.D.
Berkeley

I.

BACK in the days of the horse-and-buggy time of 1895, local educators were treated to an unusual decision, for the San Francisco professional schools of the University of California, instead of being set up in a populous neighborhood, were to be placed in a barely populated district. They were to be tethered to a region of shifting sand dunes and of steep hillsides covered with growths of sagebrush. As a short prelude to the story about to be told, there is presented a rapid glance at the two chief actors in this decision—Dr. R. Beverly Cole and Hon. Adolph Sutro, two actors in this and in many other telling incidents of an earlier California, for they were both notable men, idealistic pioneers of the growing West.

RICHARD BEVERLY COLE

Dr. Richard Beverly Cole (1829-1901), a Virginian, arrived at San Francisco in 1852. He was professor of obstetrics and diseases of women for many years at the University of California Medical School, and after the founder's death in 1880, he had the largest part in determining its policies. He was well adapted for this distinction, being a successful practitioner, politically adept, of gusto, humor, and eloquence. In 1895, just when the selection of a site was being debated, Cole was elected president of the American Medical Association, the first San Franciscan so honored. He said of our school:

> I have reached the top rung of the ladder in my profession by having been selected president of the American Medical Society, and now my only desire is to establish the college.

Cole was then sixty-six years of age. He died six years later, while serving as San Francisco's coroner.

ADOLPH SUTRO

Adolph Sutro (1830-1898), Prussian-born, of Jewish antecedents, came to San Francisco in 1850 as a lad of twenty years. He was a well-educated,

† A Twenty-Five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of California and Western Medicine. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.

* Delivered at Toland Hall, University Hospital, San Francisco, March 25, 1937.

Paper One in a series of lectures on the history of the Medical School of the University of California.

eminently successful mechanical engineer and promoter, imaginative, creative, and imperious. In 1879 he completed the fourteen-year task of driving through a drainage tunnel that tapped the silver mines of the Comstock Lode in Nevada. Its success made him a millionaire, and with faith in the future of San Francisco he bought up about one-twelfth of the county's unplotted acreage, including such areas as the Cliff House, Sutro Heights, and the Sutro Forest. This busy man of affairs nourished both a fierce hate and a sustaining love. He hated the Southern Pacific Railroad and fought it for almost thirty years, while his great love was expressed in books and the collecting of books. In the auction rooms of Europe, he had gathered about three hundred thousand items, remarkable for their excellence and rarity, and including four thousand incunabula and manuscripts in Hebrew, Latin, Greek, English, French, German, Spanish, and Arabic. There were Aztec writings and a large material on Spanish America. Experts ranked it fourth in the nation's collections, and in fifteenth and sixteenth century products it was unexcelled in America. Of this collection Andrew D. White wrote in 1892:

> I must confess that of all the amazing things on the Pacific Coast (and I encountered surprise after surprise), the most unexpected was the discovery of the Sutro Library, and of the fact that so few people in California knew anything about it.

In 1895 Sutro wrote:

> I look upon the present Sutro Library as but a nucleus of what it will be. It shall be my life's work and pride to make it the most complete reference library, embracing the sciences, arts, and mechanics, upon the American continent.

Sutro was then sixty-five years old, afflicted with diabetes, harassed with financial entanglements, and, as mayor of San Francisco, annoyed with political bickerings. He died three years later. With this prologue intended as a tribute to two of California's pioneers of contrasting types seen in the sunset of their well-spent lives, we pass to the main theme.

ESTABLISHMENT OF THE PROFESSIONAL SCHOOLS: THE AFFILIATED COLLEGES

The University of California opened its doors in 1869, and in the following year welcomed the advances of the Toland Medical School to join. Delayed for three years by the exactions of the founder, affiliation was finally achieved in 1873, largely through the political engineering of Doctor Cole, supported by the wisdom of the University's second president, Dr. Daniel Coit Gilman. The old medical school was in the "complete and stately" Toland Hall on Stockton Street between Chestnut and Francisco streets, near the City and County Hospital in the North Beach, a region "favoring the health and industrial habits of the students." There it carried on honorably for some thirty-five years. In 1873, also, the School of Pharmacy enrolled its first class, gave instruction at Toland Hall, and immediately fortified itself by affiliation with the University. The Hastings Law School, endowed and organized in 1878, furnished instruction by three or four teachers in the old Pioneer Hall. Though a University affiliate, it was loosely bound, since its endowment of $100,000 was paid outright to the State. On the recommendation of the medical faculty, California's first School of Dentistry was formed as a University affiliate in 1881. Its students received instruction at Toland Hall until 1890, and after this at Taylor and Market streets. Of these four schools known as the Affiliated Colleges, the medical one, both in the financial value of its plant and in the influence of the medical faculty on the cognate subjects, held a predominant position, and Toland Hall was the chief theater of action. A fifth, the Veterinary College, added in 1894, came too late to be a factor in the discussion of a site. Instruction to its few matriculates was given at Post and Fillmore streets, and it suffered from a continuous financial anemia, despite an occasional transfusion from the Ingleside Race Track's gate receipts.

CLINICAL TEACHING AT TOLAND MEDICAL COLLEGE

Facilities for clinical teaching at Toland School were severely dislocated in 1885 when the City and County Hospital was moved to a tentative site on Potrero Avenue at Twenty-second Street. Thereafter the school was left without easy access to teaching material, and the faculty became aware that Toland Hall, built in 1864, was too small for its some three hundred students, too small for enlargement of laboratories, and so decrepit that all students' fees were spent on repairs to the building. Planning for the future, a plot was bought on Potrero Avenue, opposite the new City and County Hospital. Nothing developed on this site, however, for there was no money for a new building; and after several years of futile appeals, the faculty's sole recourse was to ask the State to provide one. In 1891, a bill appropriating $80,000 for such a building passed both Legislative Chambers, but was vetoed by Governor Markham for economic reasons.[1] Then an enlargement of this plan was presented in 1893. This time the bill provided housing for all the four professional schools and called for $250,000. It met the same veto by the same governor and for the same reason.

ONE SITE FOR THE FOUR PROFESSIONAL SCHOOLS

The new idea of centering the four schools on one campus was originated apparently by the University regent, J. B. Reinstein, a San Francisco attorney who later handled the legal interests of Mrs. Phoebe Hearst.[2] For the third time relief was attempted in 1895 when a California alumnus, James H. Budd, was governor. An appropriation of $250,000 was again asked, covering the housing needs of the four schools. Opponents of the measure alleged that these colleges were private, proprietary schools and not integral parts of the University at all. Why should the groaning taxpayers pay for the education of professionals? If once incurred, would not the expense be recurring? It was not possible to provide land and buildings for the four schools with $250,000, and

1 Appendix to Journals, Thirty-First Sessions, Vol. I, p. 9.
2 San Francisco *Examiner*, March 28, 1897.

would not the stench of the anatomical rooms drive out the other students? Why, eventually medicine would seize the entire benefits of this extravagant measure! The political mood of California was as conservative as was the nation's during the then second presidential incumbency of Grover Cleveland. But the State's population growth was rapid, University matriculates had tripled and the Affiliated College attendance had doubled from 1890 to 1895. California's oriental labor disputes were quiescent, the great railroad strike of 1894 was over, and interest in education was heightened by the opening of Stanford University in 1891. Under these favorable influences, the Affiliated Colleges Bill was passed, with approval, in March, 1895.

QUANDERY CONCERNING THE SITE

Immediately the Regents appointed a Site Selection Committee of four faculty members, one from each professional school, with Regent Phelps, Doctor Cole serving as chairman. Cole went East with an architect to observe medical architecture, while the Committee received offers of possible locations. It was on this eastern visit, and while attending the 1895 sessions of the American Medical Association, that Cole received the presidency of that body. Upon his return, encouraged and assured by the welcoming acclaim of the city, Cole let it be known that the Committee had no money for land, it expected a free site, and asked, furthermore, if there were any wealthy, public-spirited men left in San Francisco. Many sites were offered, but most of them were too small or too costly. The Committee's quandary was expressed a century before by Thomas Warton, Professor of Poetry at Oxford:

> Within what mountain's craggy cell
> Delights the Goddess Health to dwell?

All possible sites were eventually sifted down to two free offerings. One, the John Centre plot of five and one-half acres, was on Potrero Avenue between Fifteenth and Sixteenth streets, and accessible—only nine minutes by foot from the City Hall, and was near the City and County Hospital. But its detractors found a faulty title, the expense of grading and retaining wall, a view of only Alameda County shores and Butchertown, heaps of rubbish, bottles, tin cans, babies, and goats. The other offer of free land was the generous one of Mayor Sutro, made in July. It concerned twenty-six acres intended as the location of a library to house his many books. The western half, thirteen acres, was now offered to the State for its professional buildings, while the eastern half was reserved for the Sutro library. This parcel lay south of the city's great park on J Street between First and Fourth avenues, two and a half miles from the City Hall, and was at the city's geographic center. Its elevation of 400 feet gave an inspiring view of the ocean and bay shores, of the Golden Gate and of the park. Back of it were hills, giving protection from winds, though at times the trade winds came to it from the ocean. Street-cars ran near by; later on transportation would be better. Sutro seductively recalled to the Regents the magnificence of his books and seductively again stressed

Toland Hall, Medical Department

the importance of a library to a seat of learning. Opponents of this choice, including two of the medical faculty who soon resigned, pointed to the inaccessibility of this sand-dune site. "Even were the Sutro library ever built," they said, of what use would these antiquarian and classical books be to the Affiliated College students? From where would clinical material come? What had a beautiful marine view to do with the study of anatomy and pathology?

THE SELECTION OF THE PRESENT SITE

On September 1, the Committee and a few Regents drove up to inspect Sutro's offering: "Magnificent," said Doctor Cole; "Glorious," said Judge Wallace"; "Extremely picturesque," said Regent Phelps.[3]

It was recalled that Mr. Stow, a promoter of Golden Gate Park, had desired that this choice bit be added to the Park; there were visions of a noble library rising to the East, of the possible location of the City and County Hospital a few blocks to the West. The professional members of the Committee were unanimously for the Sutro site, and without particular opposition the University regents accepted it a week later. Sutro somewhat arbitrarily stipulated that construction was to start in six months, that buildings were to be approximately fireproof and placed 75 to 100 feet apart. Like all experienced Californians, he, thinking of his books, feared destruction by fire. The marine view was to be safeguarded by requiring all build-

[3] Newspapers of September 2, 1895.

ings on the north side of J Street (and Sutro owned the land) to reach no higher than thirty feet above ground level. A deed of gift was signed on October 8, 1895, but in this instrument no mention was made of a library. A fulsome letter of thanks from the Regents followed, emphasizing invitingly the importance of his library, but Sutro never bound himself legally to provide one.

THE SUBSEQUENT DELAY

Now came six cantankerous months of drawing plans, advertising for plans, bids for construction, the squabbling of architects, unraveling the knots of governmental red tape, and, worst of all, in suspecting Sutro's motives. "Why all this unnecessary delay?" asked newspaper writers. An editorial in the *Chronicle* opined that Los Angeles and San Diego did things faster: they took but eighteen months to metamorphose from village to city.[4] Sutro's limit of six months for starting construction was extended by request to a year. He was naturally annoyed by the seeming intrigue, and reverted to his old hate for the cause of the delay. In 1894 Sutro was elected Mayor of San Francisco on the Populist ticket, and now his wranglings with the Board of Supervisors, added to his many private cares, made him more irascible. At a meeting of the Site Committee, which Governor Budd attended with several Regents, Sutro suddenly appeared in a fighting mood. He charged the Governor and some of the Regents with being under the control of the Southern Pacific Railroad Company. Of course, this vexatious delay betrayed a preference for the Potrero site. Was it not near the Southern Pacific properties? He would not trust such Regents with his library. His own Board of Trustees would handle the matter—and the library would be a gift to the city. This snarl grew out of a deepening suspicion that Sutro was evading the building of a library, and in vain did the Regents try to put his earlier promises in the form of a legal instrument. "He is booming his real estate," "He is evading taxes," "He wants the State to build his library," said his enemies, and most of 1896 passed with tardy progress steeped in vituperation. At that, the State cumbrously carried out its obligation, plans and bids were finally accepted, and on October 20, 1896, just a year and twelve days after the signing of the deed, work was started on this site. On request, the State Prison Directors supplied granite quarried by the prisoners of Folsom at a saving of $10,000, the medical faculty subscribed over $1,100 for plans, the architects reduced their fees, the builders accepted changes reasonably, and as the four structures rose, it was granted that planning and building were well and honestly done. Medicine was to occupy the middle building; law, the one to the west; pharmacy and dentistry, the one to the east; and veterinary science was to be located in the rear.

LAYING OF THE CORNER STONE

State and University officials, citizens, teachers, and students, gathered joyously for the Medical School's corner stone laying, enacted with Masonic ritual, on March 27, 1897. Cole, exuberant, and himself a former Commander of Knights Templar, helped the chief dignitary swing the stone into position and wield the symbolic trowel and mortar. There was florid oratory, but portentiously, a heavy rainstorm soaked the assemblage. The chief speaker, Lieutenant-Governor Jeter, declared the rain drops were tears of joy running down the face of Nature, but in the local medical journal these drain drops were ascribed to the falling tears of Aesculapius, weeping at the Medical School's sand-dune burial. Sutro, no longer mayor, speaking shortly and in a low voice, extolled the site. About a year and a half later, on October 22, 1898, the new buildings were dedicated; Cole, triumphant and expansive, saying that, in some respects, the Medical Building was unexcelled in all the world. The other chief actor was dead, Sutro passing away in August, 1898. His estate was estimated at over a million dollars, but it carried a mortgage of $700,000, and the assets were frozen. He had been too land-poor to build his library.

BUILDINGS OPENED IN 1897

San Francisco did not agree with Cole's superlatives as applied to the new Affiliated Colleges, for it took from twenty to forty minutes to reach them, and the State had made no provisions for furnishings or equipment. Nevertheless, didactic teaching in medicine began here that year, supplemented by clinical teaching in a new clinic at 155 New Montgomery Street and in the far-away City and County Hospital. The Hastings Law School utterly ignored its new home. Beginning in 1901, and for thirty years afterward, its intended building served as an anthropological museum for the valuable collections financed by Mrs. Phoebe Hearst. Here also the unique Indian, Ishi, the last survivor of his tribe, was exhibited. The three other schools eventually accepted their new homes—pharmacy in 1899, dentistry in 1900, and veterinary science in about 1903. The dental school opened the first clinic on the site upon occupancy in 1900, but wisely continued the old one in the downtown section. But the hope was often repeated that some good and wealthy citizen would provide a hospital on the site, for there were no sick people there to serve or study. Gaunt, empty and remote stood the Affiliated Colleges, so for many years one could not have boasted that "San Francisco knows how."

APRIL 18, 1906

Then Nature and San Francisco both conspired to change the picture. On April 18, 1906, a memorable earthquake bumped, shook and whirled the city for about fifty-three seconds. Soon afterward one saw, through the early morning air, thin columns of smoke rising from separated sections of the city, dire foretellers of fire which destroyed four square miles of San Francisco's business area. The losses were prodigious. The Affiliated Colleges' loss of $35,000 included the burning of the downtown dental and medical clinics, while the University suffered a yearly income reduction of $100,000. Unfortunately, about three-quarters of the Sutro library was stored in the Montgomery

4 San Francisco *Chronicle*, April 9, 1896.

Building, and these books, including nearly all the incunabula, were lost. A like tragedy befell the Pioneer Society and Odd Fellows' libraries, all rich in California books, documents, and mementoes. Many thousands of home-seeking citizens trudged to outlying districts, including the Sunset Addition, in the neighborhood of the lonely Affiliated Colleges. The fire had brought clinical material to the doors of the schools.

ESTABLISHMENT OF THE OUT-PATIENT DEPARTMENT

Following the earlier example set by the dentists, the medical faculty opened an out-patient department in its quarters two months after the catastrophe, and the first two years of medical instruction in the laboratory subjects was transferred to the Berkeley campus.

THE ORIGINAL HOSPITAL

Through private gifts, especially an endowment of $100,000 from the Massachusetts Relief Fund, a fairly equipped hospital of about one hundred beds was established in the Medical Building in 1907. This achievement was accompanied by the inauguration of the University's first School of Nursing. Despite these adjustments, it was a period of arrested growth. There were but twenty-six medical students in 1907, and later the clinical material and clinical instruction were proved to be inadequate, and the separate teaching of the laboratory subjects at Berkeley was awkward. There were schemes to move the entire Medical School to Berkeley, or to amalgamate it with the Stanford School of Medicine. These schemes came to naught, but they hastened the planning in 1915 of a new and larger University Hospital of 250 beds.

HOOPER FOUNDATION FOR MEDICAL RESEARCH

Most heartening in this discouraging time was the accession of the Hooper Foundation for Medical Research in 1914. Its technicians were placed in the former Veterinary quarters, since after 1910, "from snout to tail," veterinary science was taught at Berkeley, where it became a live division of the Department of Agriculture. In the meantime, Regent William Crocker took the lead in getting some $600,000 privately subscribed for the new hospital, and this unit was occupied in 1917. The new Nurses' Home was ready for use by 1919. It was purchased the following year, having been previously leased. This home and the block intended for the new Dentistry Building, bought in 1921, both lie north of the original site. Sections to the east, where Sutro's library was to have been, were bought from certain of his heirs in 1928. Incidentally, what remains of Sutro's books, about 70,000 items, was given to the State and is well housed in San Francisco's Civic Library. The erection of the out-patient addition in 1931 to 1933 necessitated the return of the anthropologic museum to Berkeley, as the intended Law School Building was demolished. It was the first of the large buildings to go, and it seemed jinxed from the first. Instead of the original grant of thirteen acres, all south of Judah Street, the enlarged San Francisco campus now covers almost twenty acres, extending both to the south and north of that street.

EPILOGUE

The State in 1895 thought to provide a home place for all of its University departments operating in San Francisco, including law, biologic laboratories, university extension, and such others as time would bring. Doctor Cole, in 1895, envisaged a busy, professional village with shops and restaurants, a self-sufficient seat of learning. Adolph Sutro, in 1895, conjured up a clustering place of schools built amid beautiful lawns, flower-beds and trees, while from the schools came crowds of students hurrying to his priceless library. Time serving to change the pattern, there eventuates a great and growing center where all of the healing arts and sciences are studied. Thus, in the MEDICAL CENTER that we know is realized more of the original content than proceeds from most visions or dreams of founding fathers.

2600 Ridge Road.

CLINICAL NOTES AND CASE REPORTS

RELAPSING NONSUPPURATIVE PANNICULITIS

By ALFRED C. REED, M.D.
AND
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San Francisco

WE wish to record what is apparently the seventh reported case of relapsing febrile nodular nonsuppurative panniculitis (Weber-Christian Disease).

Henry A. Christian [1] in *Oxford Medicine* summarized this rare disease up to 1934, noting that to that time only three cases had been reported, the third by himself [2] in 1928. He wrote: "So far, three instances of this disease have been reported, the first by Gilchrist and Ketron,[3] under the title 'a unique case of atrophy of the fat layer of the skin, preceded by the ingestion of the fat by large phagocytic cells, macrophages'; the second by F. Parkes Weber,[4] using the term 'relapsing nodular nonsuppurative panniculitis, showing phagocytosis of subcutaneous fat-cells by macrophages'; and the third by Henry A. Christian,[2] adding to Weber's chief terminology the word 'febrile.' No other cases have been found in the literature."

In addition to these, Brill [5] notes the first recorded case by Pfeiffer [6] in 1892. The fifth case was reported in 1933 by Alderson and Way.[7]

The sixth case was reported by I. C. Brill [5] in 1936. Brill carefully reviews the preceding five cases, in addition to his own. He summarizes the distinguishing clinical features as follows: (1) Fever in recurring attacks; (2) nonsuppurative lesions of the panniculus adiposus with a nodular distribution; (3) depression on the surface of the skin from atrophy of the fat, which accompanies or follows healing of the lesions. The

Fig. 1.—Subcutaneous tissue from a case of panniculitis. (Kindness of Dr. J. F. Rinehart.)

Fig. 2.—Subcutaneous tissue from a case of panniculitis. (Kindness of Dr. J. F. Rinehart.)

dermis is not involved except for reddening in the acute stage. On completion of the process, the skin appears to be entirely normal. In Brill's case there was fever, and a general distribution of the lumps on the thighs, trunk, and arms. The spleen was enlarged, in distinction to the preceding five cases where no enlargement was noted. Leukopenia and a relative lymphocytosis were present. Sternal puncture showed no abnormality of the bone marrow. Blood serum was negative for agglutinins of B. typhosus, B. paratyphosus A and B, and for Brucella. Tests of the blood revealed the following: sugar, 106 milligram per cent; calcium, 10.9 milligram per cent; inorganic phosphorus, 4.2 milligram per cent; cholesterol, 230 milligram per cent. Wassermann and Kahn reactions were negative. Brill gives an excellent summary of the preceding five cases, all of which, like his own case, were in females. No casual bacteria were discovered in any, and the etiology remains quite unknown.

REPORT OF CASE

M. P., an American school teacher, age thirty, was first seen on May 10, 1933, when she complained of "swelling" in the calf of her left leg. In 1928 and 1929 she had three "swellings" about her thighs for several weeks. There was no fever nor other signs or symptoms at that time. Five weeks before she had three more "swellings" on her legs. Induration in one area beneath the right knee has persisted, and the site is very painful. A lymph node in the right inguinal region was painful, also, for a short time. The family history is unimportant. The patient was born in the Hawaiian Islands, and has resided in the Philippines, Mauritius, Japan, China, Belgium, France, the Malay Peninsula, and in California since 1922. There was no history of previous illness except malaria, in 1916, and a ruptured appendix, which was removed in 1921. Febrile periods occurred in 1916 and 1920 in the Philippines and in 1921 in France, at which times no diagnoses were made. Her habits are regular. The past history otherwise is irrelevant.

When the patient was examined in 1929, a small subcutaneous mass was observed on the anterior surface of the left thigh. The area felt hard, was not discolored and the skin over the site was fixed. When first observed by the patient in the fall of 1928 the mass was about two centimeters in diameter, and in one month reached its maximum size of 10 centimeters. In April, 1929, the second "lump" appeared, and shortly thereafter the third indurated area developed. Her physical examination then, and again in 1933, was not abnormal, except for these subcutaneous masses.

In 1933 the single area, measuring 7.5 by 20 centimeters, in the left lower leg was red to purple in color, firm to touch, and slightly tender. No lymph nodes were palpated or tender, but there was slight general edema of the right leg. Her temperature on May 10, 1933, was 99 degrees Fahrenheit at 4 p. m. Twenty days later the area was reduced to approximately one-fourth its former size, and was not indurated, and eventually the discoloration disappeared entirely. She was free from recurrence to December, 1936, when a subcutaneous mass developed again in the right thigh. Reëxamination at this time revealed three small masses in the left hip, and the larger one already mentioned, in the right thigh. By May 7, 1937, all signs and symptoms had disappeared completely.

Clinical and Pathologic Studies.—Clinical and pathologic studies were made during this period. In April, 1929, there were 6,600 white cells per cubic millimeter with 68 per cent neutrophils, 26 per cent small lymphocytes, 3 per cent large lymphocytes, and 3 per cent eosinophils. The complement-fixation reaction for syphilis was negative. Serum agglutination tests for B. tularense were negative. The sputum contained no acid-fast organisms. Roentgen examination of the chest was negative. No microfilariae were seen in blood samples taken throughout a twenty-four-hour period. A section of infiltrated fatty tissue was removed for pathologic study. There was a fine connective tissue stroma with numerous minute pale foci, and in one area the tissue was quite firm and appeared darker. No worms were seen. On microscopic study there was observed marked infiltration of the fat and fascia by lymphocytes, endothelial or epithelial cells with tubercle formation. Lanhan's and "foreign-body" type giant cells were seen, and also some occlusion of the capillaries due to endothelial hyperplasia was observed. No parasites were found. The diagnosis of fat necrosis, possibly traumatic, was made and was concurred in by Dr. William Ophüls.

In May, 1933, there were 4,200,000 red cells per cubic millimeter, hemoglobin was 80 per cent (Sahli), and there were 8,500 white cells with 62 per cent neutrophils, 36 per cent small lymphocytes, and one per cent, each of monocytes and eosinophils. The urine test was normal. No filarial organisms were demonstrated in blood samples taken hourly over twenty-four hours. Roentgen examination of the soft tissues of both legs failed to demonstrate any calcifications. A biopsy of the affected fatty tissue at this time showed no gross pathologic changes. Microscopic examination by Dr. Zera Bolin revealed cells in the stroma of the fat which appeared to be lymphocytes and large mononuclears. A few monocytes were seen also. There was a slight proliferation of fibrous tissue. Neutrophils constituted 10 per cent of the white cells seen. Hyperplasia of the endothelium of one arteriole was observed. No bacteria were demonstrated, and cultures of the tissues were negative. No eosinophils were seen. The pathologic diagnosis of inflammation in the subcutaneous fat with slight endothelial hyperplasia was made at this time.

In March, 1937, there were 4,310,000 red cells per cubic millimeter, with 90 per cent hemoglobin (Sahli), and 8,080 white cells with 55 per cent neutrophils, 41 per cent lymphocytes, 3 per cent monocytes, and 1 per cent eosinophils. The blood clotted in three and one-half minutes and a normal control sample clotted in four minutes. There were 240,000 platelets per cubic millimeter of blood. Kolmer and Kahn tests were negative. The blood cevitamic acid was 3.4 milligram per cent. A Frei test was negative. The urine examination was normal. The Mantoux test was negative. Agglutination tests for Brucella abortus were negative. An autohemic test, to determine if rheumatic-like nodules would develop on intradermal injection of the patient's blood, was negative. A piece of indurated fatty tissue was removed again and subjected to pathologic study. On microscopic examination, Dr. James F. Rinehart described, in the reticular stroma of the fat, a number of inflammatory cells, chiefly mononuclear, but including a moderate number of polynuclear cells. Fibrinous thrombi appeared occasionally in some of the small capillaries.

Bacteriologic study of the removed tissue revealed no bacteria on Gram stain or acid-fast stain, and no fungi. Cultures of the tissue were negative, also.

Diagnosis.—A pathologic diagnosis of panniculitis was made.

Subsequent Course.—Since the patient was last seen in April, 1937, she reported on June 13, 1937, that she had observed a new "lump" in her left thigh. It was not painful. At the suggestion of Dr. Herbert C. Moffitt, she was advised to have roentgen-ray therapy applied to this area, and following this the mass did not disappear. She has had no other specific or general therapy except that she was advised to develop a "sun tan" and to eat larger amounts of meat and vitamin-containing foods, since her diet was deficient in these factors.

350 Post Street.

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DISSEMINATED COCCIDIOIDAL GRANULOMA*

By Julius Zelman, M.D.
San Bernardino

THE following case is presented because of the various lesions which the coccidioidal granuloma manifested. The patient was sent to this institution, diagnosed C. N. S. syphilis, with a tentative diagnosis of coccidioidal meningitis.

Here coccidioidal infestion of skin, lung, and C. N. S. was diagnosed and confirmed by autopsy. The inquest also brought to light the gross involvement of the adrenals, prostate, seminal vesicles, kidneys, spleen, and liver.

Illustrations of the skin lesions and adrenal are presented.

(I am indebted to Max Cutler of Loma Linda for aid in pathological studies.)

REPORT OF CASE

Male, born January 20, 1901, in Forrest Hill, Louisiana; in California five months; from Phoenix, Arizona, where he lived for the past five years; eighth-grade education; poor financial condition; urban environment; no drugs; temperate alcohol; Protestant; has not worked for the past year; occupation, laborer; race, Spanish.

Committed to the State Hospital because of increasing periods of confusion and disorientation; memory impaired; sleep is disturbed by pain in the head; coccidioides.

San Diego County Hospital History.—History given by San Diego County Hospital prior to entry here:

The patient was admitted to the Main Hospital on February 18, 1937. His chief complaint on admission was pain over the right frontotemporal region (two weeks) and pain in the legs, starting mid-thigh and radiating to the feet (five days); aggravation at night. Had chancre in 1931, with nine months' treatment at one time and eleven months' treatment following a year of intermission. Has had a slow, wobbly gait for one year, and much worse in the past week. His gait was tabetic in type. He had skin lesions diagnosed prior to admission as blastomycosis. Wassermanns were negative.

Laboratory Findings at San Diego

February 18—Urine negative, except mic. Pus, xx.

February 20—Spinal fluid. White blood cells, 86; globulin, 3 x. Sugar, normal. Wassermann, positive. Colloidal gold curve, 3-3-4-4-4-4-3-3-2-1-0.

February 22—White blood cells, 11,050; hemoglobin, 85 per cent. Differential. Polymorphonuclears, 77 per cent. Lymphocytes, 20 per cent. Large mononuclears, 3 per cent.

X-ray of skull on February 20, 1937, showed calcification in the choroid plexi and pineal, without other evidence of intracranial calcification. No x-ray evidence of increased intracranial pressure, and no evidence of a destructive process of the cranial vault. The sella turcica was normal.

February 24—Blood: Precipitin test (Kline), negative.

March 1—Smear from gums, positive; fusiform bacilli, 2 x; spirilla, 2 x.

March 2—Scrapings from skin lesions; fungus coccidioides demonstrated on a direct examination of scrapings. Organisms present in intra-epithelial abscesses.

March 1—X-ray films of sinuses show no evidence of sinusitis.

March 23—Spinal fluid. White blood cells, 35. Globulin, 4 x. Wassermann, positive. Colloidal gold curve, 5-5-5-5-5-4-4-4-3-3.

April 6—Urine negative, except for red blood cells and pus cells in sediment (minor numbers).

April 7—Blood Wassermann was negative.

April 8—Urine was negative for pathologic findings.

Course.—History prior to admission to San Diego.

Blastomycosis of face and few other patches treated with x-ray and iodides for the past three months, with good results.

Wassermann: 4 x, 1930; 0, 1931; 4 x, 1934; 4 x, 1937.

February 19—Daily spinal drainage. Spinal-fluid pressure, 240 mm. Daily spinal puncture done until February 26, 1937. Spinal-fluid pressure registered 110 mm.

April 1—The patient developed restless irrational attack, requiring restraint.

April 6—Frequent lapses of memory, some hallucinatory experiences and disorientation. Transferred to psychopathic.

Treatment: Sodium iodid; thiobismol.

Tentative diagnosis of coccidioidal meningitis made, with bad prognosis.

Laboratory findings indicated C. N. S. lues.

Physical Examination at Patton.—The patient was received at this hospital in a weakened physical condition, emaciated, showing evidence of recent weight loss; his temperature was 102.4; pulse, 100; respiratory rate, 24. Height, 5 feet 7 inches. Weight, 120 pounds.

Examination revealed: Lesion on upper left lip, round, elevated crusted edge, reddened center, clearing to periphery where crusts begin. Size, 3 x 2 centimeters. Left shoulder—two lesions, one from deltoid area, extending down posterior arm, scar tissue 5 x 3 centimeters with raised, crusted area 2 x 2 centimeters; the other a punched-out ulcer in appearance, 1 x 2 centimeters. Lesion on right elbow ovoid in shape, clearing center, pinkish hue with small elevated crusts at periphery. Skin showed a subicteric tint. Lungs clear to physical signs. Heart rate was rapid, enlarged to the left; snappy A-2; tambouric quality. Pulse was 102. Blood pressure was 120/80/40. Chancre scars on penis.

Neuromuscular examination: No tremor of fingers. Romberg was negative. Test phrases, hesitancy. Knee jerk

* From the Psychiatric Service of Frank Fay Williams, Jr., M.D., Patton State Hospital, Patton.

Fig. 1.—Photograph of lesion on left shoulder.

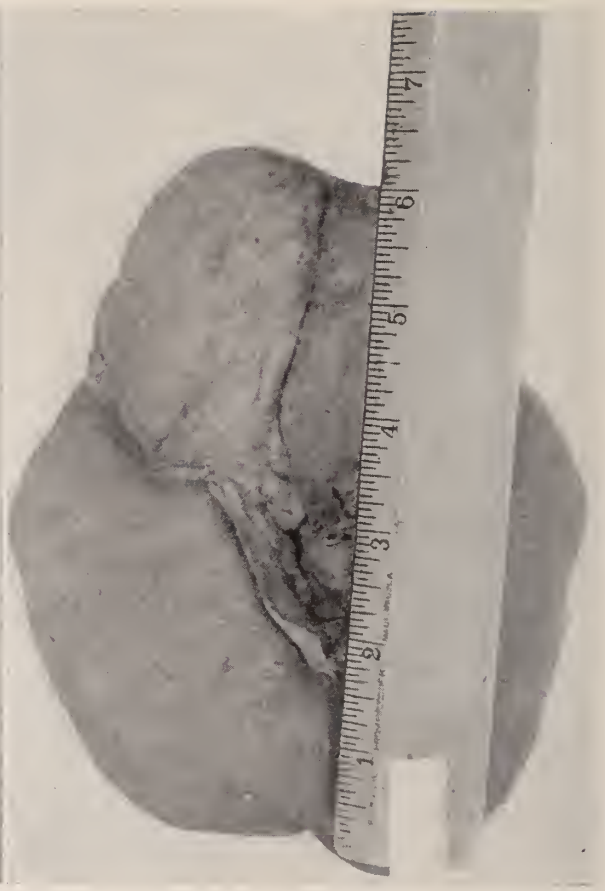

Fig. 2.—Photograph of one kidney and adrenal to show size of adrenal.

on left, active; on right, hyperactive. Positive Kernig; Brudzinski Babinski bilateral, positive. Smell, negative. Pupils irregular, equal; react sluggishly. Hearing, negative. Fine tremor of tongue.

Laboratory Findings at Patton

Hematology.—White count, 15,900; red count, 4,830,000; hemoglobin, 86 per cent; 12.5 grams; polymorphonuclears, 67 per cent; eosinophils, 17 per cent; basophils, 1 per cent; total, 85 per cent; lymphocytes, 9 per cent; transitionals, 6 per cent.

Urinalysis.—Specific gravity, 1.007; albumin trace, sugar negative; no casts. White blood cells, 14-16; Red blood cells, 0-1. Urethral and bladder epithelium, 1-2; no bacteria.

Spinal Wassermann.—Negative. Globulin, four plus; cell count, 396. Colloidal gold curve, 5-5-5-5-5-5-5-4-3-2-0.

Guinea-pig inoculation of spinal fluid was positive for coccidioides.

Blood Wassermann.—Doubtful. Kahn test was negative.

Biopsy Report.—Coccidioidal granuloma.

X-Ray Report.—X-ray of the chest showed the heart normal size; increased peribronchial marking on the right; a uniformly distributed mottling throughout all lobes of the lung. With a history of coccidioidal granuloma skin lesion, the question arises whether this may be due to the coccidioides. In the left upper chest, in the second and third interspaces, are calcified areas which may be original focus.

X-ray of Bones.—Femur, tibia, humerus, and skull were negative.

Course.—The patient failed rapidly; marked weakness, dizziness and dyspnea. The patient was unconscious during the last few hours.

Autopsy.—External Examination.—Body was that of a rather undernourished white male, appearing about forty years of age. There were crusted rough surfaced lesions in the skin of the left side of the upper lip and the lateral surface of the right forearm. Some scarring of the skin was present in the area of these lesions, especially on the left arm. There has been a surgical excision of the lesion on the right forearm. No jaundice or edema was present.

Internal Examination—Head: Scalp, skull cap, and dura were normal. The leptomeninges showed some opacity along the blood vessels throughout. There was considerable scarring as well as exudate in the meninges about the brain stem.

Thorax: Pericardium was completely adherent to the heart by moderately dense fibrous adhesions. The heart weighed about 325 grams. The various valves were normal, with the exception that there was moderate scarring of the margins of the mitral cusps. The cusps were not narrowed, however. The coronary arteries were normal. The aorta contained only tiny yellow spots in the intima.

The pleural cavities presented adhesions posteriorly and at apices on both sides. Lungs showed some generalized edema and congestion; both lungs contained extremely numerous minute tubercles. In the apex of the right lung there was some scarring and an encapsulated caseous area one centimeter in diameter.

Abdomen.—Peritoneum was normal. Esophagus, stomach, intestines, and pancreas were normal.

The liver weighed about 1,750 grams, and was studded throughout with very minute tubercles. There was an area seven centimeters in greatest diameter, on the undersurface of the right lobe in which the tubercles were extremely numerous and confluent.

The spleen weighed about 175 grams. The capsule was moderately thickened. The pulp contained extremely numerous, unevenly scattered tubercles.

The adrenals were enormously enlarged, each having a greatest diameter of 8 centimeters and a thickness of 2.7 centimeters. Very little recognizable adrenal tissue was

present. The cut surface showed a mixture of caseous and fibrous areas.

The kidneys weighed about 380 grams together, and were studded with tiny tubercles.

The pelves, ureters and urinary bladder were normal. The latter contained about 500 cubic centimeters of clear urine.

The prostate was of normal size. Right lobe contained abscessed areas. The left seminal vesicle was normal. The right was scarred, and in scar tissue there were many caseous areas.

The lymph nodes in mediastinum and in the upper abdomen, along the aorta, were enlarged and contained caseous areas.

Microscopic Examination of Above Tissues.—Examination revealed the spherules of fungus coccidioides.

Diagnosis.—Coccidioidal granuloma of lungs, meninges, spleen, kidneys, adrenals, lymph nodes, prostate, seminal vesicle, and skin.

San Bernardino County Charity Hospital.

SUBCUTANEOUS EMPHYSEMA IN ASTHMA*

REPORT OF TWO CASES

By Harry F. Dietrich, M.D.
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WHILE subcutaneous emphysema is only occasionally encountered in infants and children, a wide variety of etiologic agents have been recognized. Except for the occurrence of such emphysema during labor in adults,[1] and the so-called "spontaneous" mediastinal and subcutaneous emphysema in the new-born,[2] the same etiologic factors have been noted in children and adults. Trauma,[3] bronchopneumonia,[4] tuberculosis,[5] measles,[6] laryngeal diphtheria,[7] tension pneumothorax,[8] therapeutic pneumothorax,[9] aspirated foreign bodies,[10] and tonsillectomy,[11] have all been implicated. To this list should be added the pulmotor, the too zealous use of which in attempts to resuscitate new-born infants has resulted in numerous cases of emphysema of the soft tissues due to rupture of the lung. Sheldon and Robinson[12] have recently collected nine cases of subcutaneous emphysema secondary to asthma, and have added one of their own. We have been unable to find additional cases in the literature, but feel that the reports of two cases which came under our observation would be of interest.

REPORT OF CASES

Case 1.—The patient was a five-year-old white female child who was admitted to the ward because of marked respiratory difficulty. At about two and one-half years of age the youngster had her first typical asthmatic attack, and thereafter attacks occurred at fairly frequent intervals. She was known to be sensitive to a large number of inhalants and numerous foods. Many of the attacks were preceded by obvious upper respiratory infections. Except for the history of allergy, the past and family histories contributed nothing relevant to the present illness.

Four days prior to admission the child became feverish, developed some nasal discharge, complained of sore throat, and began to cough. Three days before entry the child vomited her breakfast; during the ensuing twenty-four hours she vomited and retched almost incessantly, and complained of para-umbilical pain. Respirations grew difficult and wheezing in character, and during the day previous to admission dyspnea became the chief complaint.

Physical Examination.—Temperature was 102 degrees; pulse, 150; respiration, 38. Examination showed a well-developed and nourished, dehydrated, flushed child in considerable respiratory distress. Respiration was audible and wheezing. Palpation revealed extensive subcutaneous crepitation over the neck, shoulders, and in the axillae and subclavicular regions. Showers of fine crackles were heard when the stethescope was applied over the affected areas. The eyes and ears were negative. The throat and tonsils were red and boggy. Slight cervical adenopathy was present. The heart was negative. The lung fields were resonant throughout, but over most of the chest normal breath sounds were replaced by multitudinous sibilant and musical râles. Definite prolongation of the expiratory phase of the breath sounds was evident. The abdomen, extremities, genitalia, and reflexes were negative.

Laboratory Examination.—The urine on entry showed acetone, albumin, and rare casts, but after reparation of the child's dehydration, specimens were normal. Hemoglobin was 90 per cent (Sahli); red blood cells, 5,930,000; and white blood cells, 13,050 with 84 per cent polymorphonuclear leukocytes. Tuberculin (0.1 milligram) test was negative. X-rays of the chest showed extensive subcutaneous and mediastinal emphysema, and parenchymal changes in the lungs consistent with chronic asthma. There was no pneumothorax.

Course.—Six minims of adrenalin hydrochlorid (1:1000) gave considerable relief from the dyspnea, and sodium amytal, grains two by rectum, provided adequate sedation. The youngster took and retained frequent small amounts of sweetened fluids, and by the third day the temperature dropped to normal and a soft diet was tolerated. By the sixth day no evidence of the subcutaneous emphysema remained and the patient was discharged well on the eleventh day.

Diagnoses on Discharge.—(1) Acute upper respiratory infection; (2) Acute asthmatic bronchitis; (3) Subcutaneous and mediastinal emphysema; and (4) Hypertrophied tonsils and adenoids.

* * *

Case 2.—This 7½-year-old child was admitted to the ward for the fifth time because of a severe asthmatic attack. The child's first attack occurred at the age of two years, and in the ensuing years the attacks were repeated with increasing frequency and severity. Five different times in various clinics a diagnosis of bronchopneumonia was made during particularly severe attacks, and our presumption was (in retrospect) that these episodes probably represented the picture that has been described as "allergic bronchopneumonia."[13] Although many of the youngster's attacks were preceded or accompanied by a definite upper respiratory infection, the child was found to be sensitive to a large number of foods, pollens, and animal emanations. There was no family history of allergy.

On the day before entry the patient showed signs of an upper respiratory infection, and by evening he was wheezing. The following morning his respiratory distress was increased. Adrenaline and ephedrin sulphate at home gave no relief. During the afternoon the boy developed a severe and persistent pain under his left scapula, and that evening he was admitted to the hospital because of the pain and marked respiratory distress.

Physical Examination.—Temperature was 99 degrees; pulse, 120; respiration, 42. Examination showed a fairly well-developed and nourished, acutely ill, perspiring, apprehensive boy with a restrained, shallow, nonproductive cough. Respiration was rapid, labored, and accompanied by both inspiratory and expiratory wheezes. There was suprasternal and subcostal inspiratory retraction. The eyes and ears were negative. Considerable injection and a purulent posterior pharyngeal drip were seen in the throat. Moderate cervical adenopathy was present. Except for an area or questionable dullness in the left midback, the lungs were clear on percussion. Auscultation revealed myriads of loud moist and musical râles throughout both lung fields. In scattered patches near the vertebral column breath sounds were rather bronchial in

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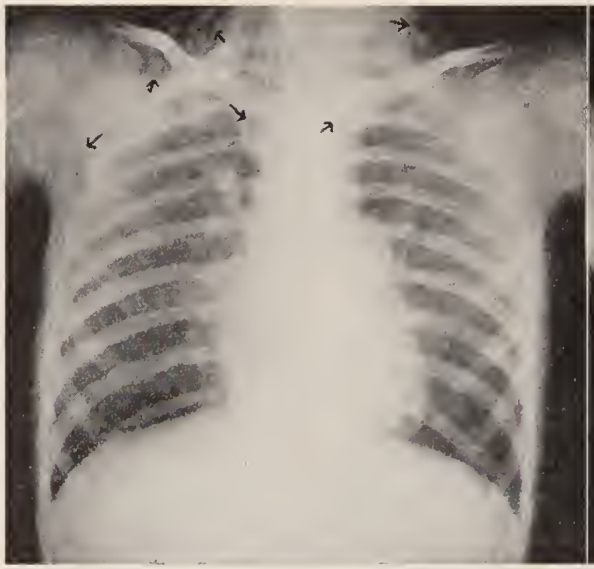

Fig. 1.—Anteroposterior film, showing the extensive subcutaneous emphysema in Case 1.

Fig. 2.—X-ray of chest in Case 2, showing subcutaneous and mediastinal emphysema.

character. The heart, abdomen, genitalia, extremities, and reflexes were negative.

Laboratory Examination.—Repeated urine examinations were negative. Hemoglobin was 90 per cent (Sahli); red blood cells, 4,820,000; white blood cells, 16,950 with 77 per cent polymorphonuclear leukocytes. Wassermann and tuberculin (0.1 milligram) tests were negative.

Course.—Adrenalin, minims four, and morphin sulphate, grains one-twelfth, subcutaneously on admission, effected considerable symptomatic relief, but had to be repeated on several occasions. On the next day the temperature rose to 101 degrees, and all symptoms, though they were attenuated, persisted. On the second day after admission the child's temperature rose to 103 degrees; and although examination revealed little change in the chest findings, extensive subcutaneous emphysema of the neck, axillae, and upper thorax anteriorly were demonstrated. There was no increase in respiratory distress. X-rays at this time disclosed subcutaneous air, and showed fairly dense infiltration extending out from both lung roots. There was no pneumothorax, but large collections of air in the mediastinum were seen. In the ensuing week the chest findings and the subcutaneous emphysema disappeared, and the temperature returned to normal. The child was discharged well two weeks after entry.

Diagnoses on Discharge.— (1) Acute upper respiratory infection; (2) Asthmatic bronchitis; (3) Allergic bronchopneumonia; and (4) Subcutaneous and mediastinal emphysema.

COMMENT

Sheldon and Robinson[12] have suggested that even in asthma there must be some factor other than the respiratory effort which finally causes the rupture of a distended alveolus, and in the first case cited in our report we feel that the intractable vomiting may have been that factor. The immediate cause of the emphysema in the second case is not so clear. Either augmented pressure due to coughing, or a structural weakness due to recurrent and chronic infection may have played a part. It may at first seem unusual that the appearance of this complication is not accompanied by an increase in respiratory distress (second case), for mediastinal emphysema alone can threaten, or take life. Ballon and Francis,[14] in their experimental work, have shown that at least one of the effects of increased mediastinal pressure is interference with the venous return to the heart. However, if we adopt the viewpoint that the extension of emphysema from the mediastinum to the loose soft tissues of the neck and shoulders results in a virtual decompression of the mediastinum, then this extension might actually relieve extreme symptoms.

Although numerous writers have advised multiple incisions in the suprasternal region[15] for relief of emphysema in this area, the lack of mortality when the condition is secondary to asthma[12] must indicate a more conservative attitude. Apparently, in the absence of frank infection such as bronchopneumonia or tuberculosis, the alveolar defect tends to close spontaneously and rapidly. From a therapeutic standpoint the most important factor is to minimize coughing, vomiting, and straining, and to this end the barbiturates or morphia, in combination with adrenal and ephedrin, would seem indicated in full doses. The definite dangers of coughing are suggested by the work of Novak and Churchill,[16] who found, in studying the intrathoracic pressure in tension pneumothorax, that coughing results in elevations of pressure five or six times higher than those produced by even very forceful respiration.

SUMMARY

Two cases of subcutaneous emphysema occurring during asthmatic attacks are reported. These cases, the youngest on record, bring the total number of cases to twelve. No deaths are recorded.

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THROMBOSIS OF THE CAVERNOUS SINUS*

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THROMBOSIS of the cavernous sinus is one of the more serious of intracranial complications, fortunately infrequently seen. The grave prognosis which these cases carry is due to the inaccessibility of the cavernous sinus for removal of the clot by surgical means, the rapid course after infection has occurred, and the reluctance of the family to consent to a mutilating operation. The mortality is very high, although it is claimed that spontaneous recovery occurs more frequently than with lateral sinus thrombosis.

The two cases reported are peculiar in that they both occurred from an insignificant surface infection of the face, both in adults in the thirties, who entered the hospital four days apart, and died within twenty-four hours of each other, after nine and ten days of illness.

* Read at the staff meeting of the San Diego County Hospital, March 23, 1937.

ANATOMIC CONSIDERATIONS

The paired cavernous sinuses are approximately 3 by 2 centimeters when distended and are traversed by numerous small trabeculae, some hanging freely in the blood stream. Situated on either side of the stalk of the hypophysis, they communicate with each other by the two circular sinuses anteriorly, and by the basilar sinus posteriorly. By means of this lateral communication, and through the flow of the venous blood traversing it in either direction (*i. e.*, intracranially or extracranially), an equalization of the venous pressure in the base of the brain is maintained at all times. The abducens nerve traverses the cavernous sinus, and the third and fourth nerves, and the ophthalmic and maxillary divisions of the fifth nerve are embedded in the dura forming the lateral wall.

The cavernous sinus receives blood from the superior and inferior ophthalmic veins which, in turn, through the facial veins, receive the blood from the anterior portion of the scalp, the face and nasal cavity as far down as the line of the mouth. From the face and nasal cavities blood may pass upward into the ophthalmic veins or downward into the external jugular.

ETIOLOGY

We recall that the veins of the head are characterized by the absence of valves, permitting a flow in either direction; and by reason of these communications we find cavernous sinus thrombosis and meningitis occurring after surface infections of the upper lip, cheek, nose or forehead, from cancrum oris, and from acute exacerbations of chronic infections of the nasal accessory sinuses.

SYMPTOMS

Thrombosis of the cavernous sinus has been studied extensively by Macewen and, according to him, there are two groups of symptoms: the symptoms caused by the obstruction to the flow of blood through the sinuses, such as edema of the lids and exophthalmus; and, secondly, the nervous manifestations caused by pressure, such as paralysis of the abducens, trochlear or oculomotor nerves, and failing vision from choked disks.

In more than half of the cases the process extends to the sinus of the opposite side; and a similar course of symptoms soon appears upon the other side. This, together with the history, is pathognomonic and distinguishes cavernous sinus thrombosis from abscess of the orbit.

TREATMENT

Treatment of cavernous sinus thrombosis is usually expectant and symptomatic. Often the diagnosis is made after extension to the other side has occurred, when operation is inadvisable. No surgical technique has given sufficiently favorable results to warrant its being generally followed, owing to anatomic considerations. Doctor Ballance, in his "Surgery of the Temporal Bone," recommends approaching the sinus from the side, by making an osteoplastic flap through the temporal bone, tying off the middle meningeal artery, and lifting up the temporal lobe.

Dr. H. P. Mosher has recommended an approach through the orbit which merits consideration, since the approach is easier. The difficulty is that the eye must be sacrificed, inasmuch as the orbit is completely exenterated. The approach is through the orbital portion of the great wing of the sphenoid external to the optic foramen. The internal jugular is tied. Through the incision a small curette is introduced, and the contents evacuated by suction.

CONCLUSIONS

The danger of opening prematurely or bruising any furuncle or abscess of the face should be emphasized. Infections in these locations should be handled most conservatively. Hot and cold compresses should be used at first, and no incision made until a localized immunity and pointing or fluctuation has occurred.

REPORT OF CASES

Case 60932. White laborer. Age, 30. Entered San Diego County Hospital on August 4, 1934.

Complaint.—Swelling and tenderness of nose and upper lip; fever and headache.

Present Illness.—Began three days ago after pulling a hair from an infected hair follicle in left vestibule of nose. The nose and lip became swollen and tender the next day. The patient noticed pain in right chest, and headache the next night.

Examination.—Tip of nose, left naris and lip red, hot, swollen, and tender. Left upper jaw indurated. Breathing was labored. Right chest: Slight dullness in front, extending to the fourth interspace and to sternum. No râles and no friction rub heard. Inspiration limited by sharp pain across chest on both sides. Also pain in lower lumbar region. Respiration, 25; pulse, 90; temperature, 103.4 degrees. The patient looked ill.

Provision Diagnosis.—Cellulitis of face.

Laboratory Findings.—Urine was negative throughout illness. Blood on second day: White blood count, 14,600; neutrophils, 83 per cent. On the fourth day the blood culture (forty-eight hours) was positive to streptococci.

Treatment.—Given hot magnesium sulphate packs continuously to face. Restlessness controlled with morphin and phenobarbital. Fluids forced by mouth and enemata. Fifteen hundred cubic centimeters saline were given by hypodermoclysis. Three hundred cubic centimeters of glucose (25 per cent) were given twice, intravenously. The right eye was irrigated with boric-acid solution every two or three hours. Argyrol solution was instilled; fifty cubic centimeters of hemolytic antistreptococcus serum (polyvalent) was given once.

Progress.—Second day (of admission): Temperature rising (104 degrees). Increased swelling. Right eye closed. Third day: Moaning, with pain in head. Temperature, 104 degrees. Fourth day: Temperature, 105 degrees (rectal). Fifty cubic centimeters hemolytic antistreptococcus serum given. Choked disk beginning. Fifth day: Temperature one degree lower. Pulse, 115. Pain in abdomen. Nausea. Sixth day: Temperature lower (103 degrees). Pulse, 100. Irrational. Right eye tightly closed. Strabismus. Pupils sluggish. Seventh day: Temperature rapidly rose to 106.4 (rectal). Pulse, 160. Cheynes-Stokes respirations. The patient expired during the night.

COMMENTS

This patient's illness was a fulminating type, lasting only ten days and terminating fatally after removing a hair from a sore spot in the right nostril—an apparently harmless procedure. Pain in chest and lumbar region occurred early, probably from a bronchopneumonia. The right eye became edematous, and blood culture was positive on the fifth day. Death was due to an early streptococcic septicemia with thrombosis of the cavernous sinus, and meningitis.

* * *

Case 61026. White female. Age, 34. Entered San Diego County Hospital, August 8, 1934.

Complaint.—Both eyes tightly closed. Irrational. Severe headache.

Present Illness.—Began five days ago when patient squeezed a small pimple on bridge of nose, followed by pain and increased swelling. This was incised two days ago, with escape of blood. Since then both eyes have become swollen, tender, and headache has developed.

Examination.—Well-nourished female. Nose red, hot, swollen, and tender. Small indurated area over bridge of nose. Both eyes tightly closed. Conjunctiva protruding from right eye. Moderate exophthalmus. Pupils small and unequal; react to light. Blood pressure 90 systolic, 50 diastolic. Respiration, 28. Pulse 100, irregular. Temperature, 105.2 (rectal). Semi-conscious. Reflexes hypoactive. Both eyes turned upward when lids are opened, and cornea cloudy.

Diagnosis.—Cavernous sinus thrombosis.

Laboratory Findings.—Urine: Albumin four plus. Acetone three plus, granular casts. Blood culture: Positive staphylococcus (second day). Kline precipitation test: Negative.

Treatment.—Fifty cubic centimeters of hemolytic polyvalent antistreptococcus serum were given on admission. Ice-bag to head and axillae, and sponge baths. Morphin, one-eighth grain, as needed. Fluids forced. Saline by hypodermoclysis, 1,000 cubic centimeters. Glucose (10 per cent) 750 cubic centimeters given, intravenously, twice. Eyes were sponged with boric acid solution and 5 per cent boric acid ointment instilled twice daily. Lister's mouth wash.

Progress.—Second day: Improved. Temperature declined to 100 degrees. Pulse, 80. Third day: Lethargic. Respiration and pulse rose. Temperature, 105.6 (rectal). Fourth day: Involuntary defecation and urination. Pulse feeble, 130. Temperature, 105 (rectal). Fifth day: Temperature rose to 106 degrees (rectal). The patient expired.

Autopsy.—Performed by Dr. Howard A. Ball, who reported as follows: "Both lungs partially adherent to the pleura. Lower half of left lobe presented several small septic infarcts and a consequent fibrinous pleuritis. Heart presented no valvular defects, but the pericardial sac was involved with infection and fibrinous reaction. The liver was negative. Spleen not enlarged. Both kidneys showed numerous small septic infarcts. Those in the cortex were more hemorrhagic. The brain presented a purulent meningitis, involving the entire basilar surface, the exudate being fairly thick, probably of four or five days' standing. The dura in the region of the sella turcica showed evidence of purulent infection. The bone also appeared to be involved. There was a thrombosis of the cavernous sinus on the left side. Contributory cause of death: Bacteremia and fibrinous pericarditis."

COMMENTS

This case also terminated fatally with a stormy illness, lasting only nine days from onset. The initial cause was from the bruising and premature incision of a small, innocent-looking furuncle on the bridge of the nose.

524 Bank of America Building.

Lack of Protection in Antimeningococcus Serum.—In studying the effect of antimeningococcus serums on meningitis in both rabbits and guinea pigs, Branham and Pabst found that, although meningitis was easily produced in these animals, they were not protected to any appreciable degree by the serums when these were administered intracisternally, intraperitoneally or intravenously. Some of the experiments have suggested that with more perfect methods of concentrating the serums better protection may be obtained.—*United States Public Health Reports.*

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

DYSENTERY

I. ETIOLOGY

John F. Kessel (Professor of Bacteriology, University of Southern California Medical School, Los Angeles).—Dysentery is usually differentiated clinically from diarrhea by the presence of blood and mucus in the discharged stool. No strict line of demarcation can be drawn, however, between the etiology of these conditions, since the same microörganism may cause diarrhea in one person and dysentery in another, or diarrhea at one time and dysentery at another, in the same individual.

Acute gastro-intestinal disturbances, with accompanying diarrheic symptoms, often occur as a result of food idiosyncrasies or of food or chemical poisoning. Balantidium coli, a ciliate, Isospora hominis, a coccidium, and Strongyloides stercoralis, a nematode, also cause dysentery, but the present discussion will be limited to a consideration of amebic and bacillary dysentery, which are both common in California.

Until recent years the term "tropical dysentery" was used commonly to indicate dysentery occurring either in endemic or epidemic form as found in the tropics. It is probable that epidemics were of the bacillary type, while sporadic cases were amebic in nature. It is now common knowledge that both types occur in temperate regions as well as in the tropics, and that sanitation is a factor at least fully as important as climate in the epidemiology of dysentery.

In California both amebic and bacillary dysentery occur endemically, and frequent minor epidemics of the bacillary type occur from time to time. In Southern California, at least, the bacillary type is encountered much more frequently than the amebic.

The two types may be differentiated clinically and by laboratory examination of the stool. Bacillary dysentery usually exhibits an acute onset with high temperature, often accompanied by marked toxic symptoms, while amebic dysentery usually occurs without these manifestations. The stools from patients with acute amebic dysentery usually yield a fetid odor, gelatinous mucus and blood, and upon microscopic examination are found to harbor many actively motile Endameba histolytica containing red blood cells. As a rule there are few or no polymorphonuclear leukocytes though occasional macrophage cells are found. Charcot-Leyden crystals, when present, probably indicate an infection of long duration.

The stools from bacillary dysenteric cases differ from the amebic in lack of odor, in the presence of flecks of blood and mucoid pus, rather than clumps of gelatinous mucus. The flecks of pus and mucus are composed mainly of polymorphonuclear leukocytes, with occasional macrophages often partially degenerative. These large cells, which frequently contain inclusions simulating red blood corpuscles, are often called E. histolytica by the inexperienced.

Stools, however, do not always show a typical cellular exudate, since this picture may be obscured by the presence of a certain amount of fecal material. Further, the stools from cases of bacillary dysentery of several days' duration may fail to exhibit the characteristic picture. In such instances, it is necessary to resort to laboratory culture methods in order to determine the type of infection.

Bacteriologic culture of the stools from dysenteric cases, in addition to microscopic examination, should be made a routine in order to rule out mixed bacillary and amebic infection, and also to determine the type of bacillary dysentery responsible for a given case.

Bacillary dysentery is caused by the following main types or species of dysenteric bacteria:

1. *Shigella dysenteriæ* (Shiga type).—This species was first discovered by Shiga in Japan in 1898, and is differentiated from the more common types by its failure to ferment mannitol, and by the fact that, in addition to the enterotoxin, it produces a neurotoxin which is an exotoxin by nature. It is the most severe of all the bacillary dysenteric type. Fortunately for us, this species is rare in California, only having been encountered thirty-eight times in six years in the Los Angeles County Hospital. In this one species, at least, antiserum therapy is indicated.

2. *Shigella paradysenteriæ* (Flexner type).—This species was first discovered by Flexner in 1900 in the Philippine Islands, and is the most common of the dysenteric bacteria. It is most frequently the etiologic agent of bacillary dysentery in California, having been found in Southern California thirty-five times more often than the Shiga type. This variety has been subdivided into five subtypes, designated as V, W, X, Y, and Z, which can be differentiated from each other by agglutination absorption tests.

3. *Shigella paradysenteriæ* (Sonné variety).—This variety is differentiated from the Shiga and Flexner varieties by the slow fermentation of lactose, and by the distinct agglutinin which it produces. First reported in the United States by Duval in 1904 and later by Sonné in Denmark, this organism has been found to be quite widespread in its distribution. Ordinarily, only occasional sporadic cases caused by this organism are encountered in California. In 1933-1934, however, a great many cases of bacillary dysentery caused by the Sonné type of dysentery bacterium occurred on the Pacific Coast. Sears et al.[1] (1935) reported an outbreak in Portland, Oregon, and Kessel et al.[2]

[1] Sears, Harry J., *et al.*: An Outbreak of Dysentery Caused by the Sonné Type Bacillus. Northwest Med., 34:37. 1935.

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(1935) reported a marked increase of this type in Los Angeles.

4. *Salmonella morgani.*—Members of the genus Salmonella are at times responsible for diarrhea or dysentery, differentiated from the Shigella type only by bacteriologic identification of the microorganism associated with the infection. The most common member of the genus Salmonella which caused such symptoms in California is Salmonella morgani, the same being usually associated with the more mild types of infection.

* * *

II. SYMPTOMS

Donald E. Griggs, M.D. (312 North Boyle Avenue, Los Angeles).—The term "dysentery" refers to a symptom complex of (1) frequent, small stools, containing mucus, or mucus and blood, (2) spasm and pain in the anal region (tenesmus), and (3) intestinal griping. Diarrhea, on the other hand, is characterized by large liquid stools containing little mucus and no blood, but much food débris. Diarrheas may be produced by the same organisms which produce dysentery. Tenesmus is most prominent in dysentery when the involvement is extensive near the rectum, while lesions in the upper end of the colon cause more intestinal griping but less tenesmus.

Acute Dysentery.—Bacillary dysentery is by far the most common type of acute dysentery. It is essentially an acute infectious, self-limited disease, though it may relapse or become chronic.

The onset, which occurs after an incubation period of from two to seven days, is usually sudden, with abdominal griping pain, followed by severe diarrhea. Occasionally, nausea and vomiting are present. The fever is variable, but usually of a moderate degree. The pulse is rapid, and the patient is usually flushed and toxic in appearance. Examination of the abdomen shows generalized tenderness. At first there is often rigidity. Later the spastic ileum or sigmoid flexure may be palpable through a lax abdominal wall.

During the first twenty-four to forty-eight hours the stools change from a diarrhea and become characteristic. They are small in amount, often only a few teaspoonfuls being passed at a time. This discharge is nearly odorless and consists principally of mucus which is often blood-stained, resembling currant jelly. The number of stools varies from ten to fifteen a day in mild cases; while in severe cases, as Manson says, the patient is "glued to the commode." The tenesmus due to rectal irritation in these cases is often extreme. Abdominal cramping pains, which center around the umbilicus, also cause much suffering. Later the stools become more purulent and contain less blood, then gradually assume a more fecal character. One to two weeks find most cases well on the road to recovery. The Shiga type of bacillary dysentery is more severe, of a longer duration, and has a greater tendency to relapse than other types.

Toxemia is often especially striking in cases occurring in infants and small children. The onset may be masked by vomiting, convulsions with high temperature, and signs of meningeal irritation. Death may even occur before the intestinal signs actually develop. Cases also occur in which the temperature is low, with symptoms of collapse dominating the picture, while early abdominal signs are entirely absent. Dehydration markedly aggravates the toxic symptoms. Similar fulminating cases may also occur in adults. In some cases the typical dysentery stools are replaced by large serous stools with mucus, which resemble the rice-water stools of cholera. In these cases symptoms of collapse soon appear. Many cases proved bacteriologically to be bacillary dysentery do not present the severe symptoms described, but rather those of a diarrhea with considerable mucus in the stools. These mild cases even without treatment are often well in a few days.

Not all cases of acute dysentery are bacillary in origin. Cases of acute amebic dysentery with sudden onset, fever, intestinal griping, purging, and tenesmus occasionally occur. The stools are bloody, brown, and mucoid. These cases of acute amebic dysentery, with constitutional symptoms, are considered rare. However, during the Chicago epidemic many of this type were reported. Several patients had symptoms of an acute surgical abdominal condition and were operated upon.

The white blood count in acute bacillary dysentery may be moderately increased or may be within normal limits. In the acute or subacute cases of amebic dysentery the leukocytosis averages higher than in cases of bacillary dysentery.

Chronic Dysentery.—Amebic dysentery is characteristically a chronic disease with periods of improvement alternating with relapses. The incubation period is usually from three weeks to three months, but may be years. Frequently, diarrhea is more prominent than the dysentery syndrome. Fever, rapid pulse and other toxic symptoms are uncommon unless the liver is invaded. The abdominal pain and tenesmus, while often present, are less marked than in bacillary dysentery. The stools of amebic dysentery rarely exceed twelve to fifteen per day, and there may be only three or four. As these often contain blood from the cecum where the ulcerations are most extensive, they are apt to be dark-colored and have a foul odor due to the altered blood. From their color and consistency they are said to resemble anchovy sauce.

Even without treatment amebic dysentery has a tendency to improve temporarily. The general course, however, is downward, and anemia and loss of strength and weight are the rule. Occasionally there are cases with an apparent spontaneous cure which lasts for months, or even years. It should be remembered that most cases of amebic infection do not present the dysentery syndrome. The patient may suffer from a slight diarrhea, constipation or other vague gastro-intestinal symptoms. Often the symptoms are attributed to neurasthenia, psychoneurosis, or some other disease.

Two types of chronic bacillary dysentery occur, both of which are uncommon. In the first type the patient never completely recovers from the acute attack. The stools continue to contain mucus and blood. During exacerbations, fever is frequently present and the patient is usually miserable and emaciated. The second type has an insidious onset without a typical acute attack preceding it. Attacks of diarrhea with mucosanguinous stools occur followed by remissions and relapses. These

cases are clinically indistinguishable from idiopathic ulcerative colitis. Many authors believe that most cases of chronic ulcerative colitis are sequelae of bacillary dysentery with other infections superimposed. The symptoms of the less frequent types of dysentery, such as the Balantidial and Bilharzial, usually resemble those of amebic dysentery, though in the latter case other symptoms such as splenomegaly are present. It is important to remember that the dysentery syndrome may be produced by carcinoma of the colon. I remember a case referred to me with a laboratory report showing Entameba histolytica and typical symptoms of amebic dysentery. After two weeks' treatment, without improvement, I found that a large carcinoma of the rectosigmoid junction was the cause of the dysentery.

While in acute dysentery the proctoscopic appearance of the lesions should not be investigated due to pain and an aggravation of the symptoms, in chronic cases direct examination furnishes invaluable information. Amebic lesions are characteristic. Small, yellowish nodules or punched-out ulcers are surrounded by a red areola. The intervening mucosa is usually normal. As amebic lesions are more extensive in the cecum, a negative proctoscopic examination does not rule out this disease. Lesions of chronic bacillary dysentery show patches of granulation tissue which bleed easily. The intervening mucosa is inflamed. These lesions are often difficult to differentiate from chronic ulcerative colitis. There is usually spasticity and often stenosis of the bowel, which make introduction of the scope difficult and so painful that the pain in itself is almost diagnostic.

Complications. — Bacillary dysentery is frequently complicated by an acute arthritis, and occasionally by parotitis, iridocyclitis, or neuritis. In amebic dysentery, while perforation or hemorrhage may rarely occur, the most frequent complication is liver abscess. In the Los Angeles General Hospital, Kessel and his coworkers [1] found this complication in 9 per cent of 319 cases in which amebae were found, as compared with 25 per cent who presented symptoms of dysentery. It frequently occurs in latent cases without dysentery.

* * *

III. DIAGNOSIS

Alfred C. Reed, M. D. (350 Post Street, San Francisco).—By dysentery is meant increased frequency of bowel movements containing blood and mucus, and associated with more or less pain. Dysentery can best be considered clinically as acute or chronic. To objectify examination methods, it is easiest to consider the actual patient.

1. *Acute Dysentery.*—The patient first receives a meticulous general examination, with record of temperature, pulse and respiration, and routine examination of blood, urine, and Wassermann reaction. This will determine whether one is dealing with a primary colitis or with a dysentery secondary to some general condition. At the same time, fresh stool specimens are examined immediately after passage, and unstained. The familiar differentiation of cellular inflammatory products is here made. In this connection, we recommend the article on "Differential Pathology of Dysentery" by G. R. Callender.[1] This first stool specimen should also be cultured on differential media (preferably E.-M. B.) for nonlactose fermenting bacilli. This culture must be made quickly.

Ordinarily proctoscopic examination should not be made in acute dysentery.

2. *Chronic Dysentery.*—The patient receives the same initial diagnostic study as for acute dysentery. In addition, a stool examination for protozoa is made daily for at least six days. The procedure for this is as follows. All stool specimens must be examined immediately after passage. Cold specimens should never be sent to the laboratory. A fresh unstained smear is examined first for cytology, food remnants, and motile parasites. Then a smear is mixed with saturated methylene blue in methyl alcohol. This will show with high dry lens if any protozoa are present. Kofoid's brine flotation test will exclude helminthic ova. A fresh, wet smear is also made as described by Reed and Johnstone [2] and, without drying, is fixed in Schaudinn's solution and stained with iron hematoxylin. This is the safest method of identification of amebas, and furnishes a permanent, vitally stained slide for later reference.

Sigmoidoscopic examination, preceded by digital examination of the lower rectum, should invariably be done. Specimens from ulcers should be taken with a camel's hair brush, or preferably a dull spoon curette. These scrapings are stained for amebae and cultured for both aerobes and anaerobes. Gastric analysis with alcohol test-meal is important.

Gastro-intestinal x-rays complete the study and should always include barium enema examination. The barium enema should never be preceded by a purge. The lower bowel is preferably cleared with saline irrigation, and after expulsion of the barium, air inflation should always be done for the final picture.

3. *Differential Diagnosis.*—The procedures outlined above furnish the basis for differentiation between the following causes of dysentery:

1. Endameba histolytica.
2. Bacterial dysenteries, including those due to B. dysenteriae, streptococci, food poisoning groups and salmonella, staphylococci, anaerobes, and possibly others, such as B. proteus and paracolon bacillus.
3. Spirochete or spirilla.
4. Chronic ulcerative colitis.
5. New growths.
6. Tuberculosis and syphilis (which are rarely seen).
7. Heavy metals, especially mercury and arsenic.
8. Rare dysenteries caused by malaria, and various helminths, including the flukes.
9. Foreign bodies, gross or microscopic.
10. Allergy.
11. Regional enteritis.
12. Diverticulosis and polyposis.

[1] Kessel, J. F., *et al*: Amebiasis and Bacillary Dysentery in the Los Angeles County Hospital, 1929–1935. Am. J. Trop. Med., 16: 417 (July), 1936.

[1] Callender, G. R.: The Differential Pathology of Dysentery. Am. J. Trop. Med., 14: 207, 1934.

[2] Reed, A. C., and Johnstone, H. G.: Methods for Diagnosis of Amebiasis, J. A. M. A., 99: 729 (Aug. 27), 1932.

CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section on pages 2, 4 and 6.

CALIFORNIA MEDICAL ASSOCIATION

HOWARD MORROW.....President
WILLIAM W. ROBLEE.....President-Elect
LOWELL S. GOIN.....Speaker
MORTON R. GIBBONS.....Council Chairman
FREDERICK C. WARNSHUIS.....Secretary-Treasurer

OFFICIAL BUSINESS

1. *Council Minutes, Two Hundred Fifty-Seventh Meeting, August 14, 1937.*
2. *Council Minutes, Two Hundred Fifty-Eighth Meeting, October 2, 1937.*

Minutes of the Two Hundred and Fifty-Seventh Meeting of the Council of the California Medical Association*

Held in Room 302, Sir Francis Drake Hotel, San Francisco, Saturday, August 14, 1937, at 9:30 a. m.

1. **Call to Order.**—The meeting was called to order by Chairman Gibbons, with the following members present: President Howard Morrow; President-Elect William Roblee; Speaker Lowell S. Goin; Chairman of Council Morton R. Gibbons; Councilors Calvert Emmons, Carl R. Howson, Louis A. Packard, Alfred L. Phillips, Henry S. Rogers, Harry S. Wilson, William H. Kiger, T. Henshaw Kelly, Karl L. Schaupp; Chairman of Public Relations C. A. Dukes; Editor George H. Kress; Secretary F. C. Warnshuis; General Counsel Hartley F. Peart and his associate, Mr. Howard Hassard.

Absent: Past President Edward M. Pallette; Councilors A. E. Anderson, J. B. Harris, O. D. Hamlin, and C. O. Tanner.

Doctor Gibbons stated that the purpose of this special meeting was to arrive at a definite conclusion about the publication of the Report of the California Medical Economic Survey.

2. **California Medical Economic Survey.**—A lengthy discussion was engaged in regarding the Medical-Economic Survey,

3. **Minutes of the Executive Committee.**—It was moved by Councilor Schaupp, seconded by Councilor Emmons, that the minutes of the one hundred and fifty-first and one hundred and fifty-second meetings of the Executive Committee be approved. Carried.

4. **Conference of Secretaries, Standing Committees, and Officers.**—Owing to conflicts with other meetings the date originally set for the meeting of the Conference of Secretaries was declared undesirable.

It was moved by Chairman of Public Relations Committee Dukes, seconded by Councilor Kelly, that the Conference of Secretaries, Standing Committees, and Officers be held on October 2, in San Francisco. Carried.

5. **Fall Council Meeting.**—The date of the fall meeting of the Council was set as Sunday, October 3, at San Francisco.

6. **Article for Journal.**—An article submitted for publication in the JOURNAL was discussed, and it was moved by Councilor Schaupp, seconded by President Morrow, that the action of the editor be confirmed and the article be not published. Carried.

7. **Requests for Retired Memberships.**—Membership data and requests for retired memberships were presented by the Secretary.

It was moved by Chairman of Public Relations Committee Dukes, seconded by Councilor Schaupp, that Roy Newton Fuller, Tulare; John I. Clark, Santa Ana; Adelaide Brown, San Francisco; and Herbert R. King, Winters, be granted retired membership in the California Medical Association. Carried.

8. **Resignation of Councilor Schoff.**—The resignation of Charles E. Schoff, Councilor of the Eighth District, was presented to the Council.

It was moved by President Morrow, seconded by Councilor Emmons, that the Secretary write the county societies of the Eighth District requesting that they contact their delegates and submit names of nominees for councilor of the Eighth District and that the Council, in conformity with Constitutional provision, fill the vacancy for the unexpired term at its next meeting. Carried.

9. **Pacific Health Corporation.**—The General Counsel reported that, in accordance with previous action of the Council, and after consultation with President Morrow, he had submitted an *amicus curiae* in the case of *People* vs. *Pacific Health Corporation.*

It was moved by Chairman of Public Relations Committee Dukes, seconded by Councilor Rogers, that the action of the President and the General Counsel be approved. Carried.

10. **Executive Session.**—At this point the Council went into executive session.

11. **Adjournment.**—At the conclusion of the executive session, there being no further business to come before the Council, the Chairman declared the Council adjourned.

MORTON R. GIBBONS, *Chairman.*
F. C. WARNSHUIS, *Secretary.*

Minutes of the Two Hundred and Fifty-Eighth Meeting of the Council of the California Medical Association

Held in Room 302, Sir Francis Drake Hotel, San Francisco, Sunday, October 3, 1937, at 9:30 a. m.

1. **Call to Order.**—The meeting was called to order by Chairman Morton R. Gibbons, with the following members present: President Howard Morrow; President-Elect William W. Roblee; Past President Edward M. Pallette; Speaker Lowell S. Goin; Chairman of Council Morton R. Gibbons; Chairman of Executive Committee Karl L. Schaupp; Councilors Calvert Emmons, Carl R. Howson, Louis A. Packard, Axcel Anderson, Alfred Phillips, Henry S. Rogers, H. H. Wilson, C. O. Tanner, W. H. Kiger, J. B. Harris; George H. Kress, Editor; C. A. Dukes, Chairman of Public Relations Committee; F. C. Warnshuis, Secretary; Hartley F. Peart, General Counsel, and his Associate, Howard Hassard. Dr. Irvin Abell, Louisville, Kentucky, President-Elect of the American Medical Association, was present at the invitation of the Council.

Absent: T. Henshaw Kelly and O. D. Hamlin.

2. **Minutes of the Council.**—Minutes of the two hundred and fifty-seventh meeting of the Council were submitted for approval.

On motion of Past President Pallette, seconded by President-Elect Roblee, the minutes of the two hundred and fifty-seventh meeting of the Council, as amended, were approved. Carried.

3. **Committee on Postgraduate Work.**—The Secretary read the Report of the Committee on Postgraduate Activi-

* The minutes of the two hundred and fifty-sixth meeting of the Council of the California Medical Association were printed in the June, 1937, issue of CALIFORNIA AND WESTERN MEDICINE, page 427. Minutes in this series now printed are for the two hundred and fifty-seventh and two hundred and fifty-eighth meetings.

ties as formulated and submitted by Committee Chairman Ruddock, outlining the plans and recommendations of the Committee.

On motion of Chairman of Public Relations Committee Dukes, seconded by Councilor Emmons, the report of the Committee on Postgraduate Work was approved.

Discussion of the recommendation of the report regarding publication of the Brochure was had. It was recommended that the Brochure be printed as a supplement to the JOURNAL.

4. **Committee on Scientific Work (Annual Session).** Minutes of the meeting of the Committee on Scientific Work, which was held on Sunday, September 12, 1937, were read by the Secretary.

Councilor Schaupp moved that the report be amended by the deletion of the recommendation regarding nonmembers and that no registration charge be made to nonmembers attending our annual sessions. Carried.

The preparation of booths for scientific exhibits and commercial exhibits, as recommended in the report, was referred to the Committee on Scientific Work for discussion and report at its January meeting.

Editor Kress moved that space be not assigned to any firm whose products are not approved by the Council on Pharmacy and Chemistry of the American Medical Association. The motion was seconded by Councilor Packard, and carried.

It was moved by Editor Kress, seconded by Chairman of Public Relations Committee Dukes, that the Secretary of the Association be instructed to appoint a Committee of Three to aid him in handling all press publicity for the next annual session. Carried.

The Council authorized the Secretary to proceed with the preparation of scientific and commercial exhibit space at a cost of $1,000. It was moved by Chairman of Public Relations Committee Dukes, seconded by Councilor Anderson, that the report of the Committee on Scientific Work as amended, be approved. Carried.

5. **Committee on Animal Experimentation.** — The Secretary read the report of the Committee on Animal Experimentation outlining the plans and recommendations of the Committee.

It was moved by Councilor Wilson, seconded by Councilor Anderson, that the report of the Committee on Animal Experimentation be approved, with the distinct understanding that the Association's financial obligations be limited to the sum named in the report. Carried.

6. **Legal Department.**—Full discussion was had of a case involving testimony by doctors of medicine in trials for infractions of the Medical Practice Act. It was moved by Editor Kress, seconded by Councilor Schaupp, that Mr. Peart be instructed, acting under the direction and judgment of the Chairman of the Council, to give all possible aid to physicians involved in the case and that Mr. Peart contact the Attorney-General and the Board of Medical Examiners and ascertain to what extent they will coöperate with the Medical Association; and that the Auditing Committee be authorized to approve the necessary expenditure of funds. Carried.

7. **Cancer Commission.**—On motion of Chairman of Public Relations Committee Dukes, seconded by Councilor Phillips, the Council approved a meeting of the Cancer Commission on November 13 at Los Angeles to further study the problems of the Commission before the adoption of a final policy for the Field Army and authorized the payment of the transportation expense of the committeemen.

8. **Qualifying Certificate Law.** — George H. Kress, Chairman of the Committee on Qualifying Certificate Law, submitted a progress report for the Committee.

It was moved by Editor Kress, seconded by Councilor Packard, that the Committee on Qualifying Certificate Law be instructed to proceed with the preparation of an initiative in as nearly the final form as possible, and to submit it to the Council. Carried.

9. **Survey of Association Expenditures.**—William W. Roblee, Chairman of the Committee on Association Expenditures, submitted the report of the Committee, which was discussed section by section.

It was moved by President-Elect Roblee, seconded by Councilor Schaupp, that the recommendations of the Secretary in regard to clerical staff be approved. Carried.

It was moved by Past President Pallette, seconded by Councilor Anderson, that the recommendation of the Committee that all employees, after two years' employment by the Association be required, as a condition of employment, to contribute to the Association's plan for retirement annuity insurance be approved. Carried.

The Secretary and the Chairman of the Council was instructed to consummate the final arrangements for this insurance.

After discussion of publication costs, it was moved by Past President Pallette, seconded by Councilor Kiger, that the California Medical Association continue the publication of CALIFORNIA AND WESTERN MEDICINE under present arrangements. Carried.

10. **Reserve Funds.**—The Secretary reported on the financial status of the Trustees Of The California Medical Association.

It was moved by Councilor Phillips, seconded by Councilor Anderson, that the Council recommend to the Trustees Of The California Medical Association that $10,000 of the reserve funds be used in the purchase of United States Government Bonds. Carried.

11. **Medical Economic Survey.**—On motion of Councilor Wilson, seconded by Chairman of Public Relations Committee Dukes, the following resolution was adopted:

WHEREAS, It is desirable that the factual information of the California Medical-Economic Survey, as presented in the Survey Director's final report of January 29, 1937, be printed and published as promptly as possible; now, therefore, be it

Resolved, That the cost of publication thereof be borne by the California Medical Association as the cosponsors of the survey; and be it further

Resolved, That this Council's Special Committee on Publication proceed as rapidly as possible with the printing of a sufficient number of copies to supply one copy to each member of the Association and to provide an additional one thousand copies for distribution to all interested agencies; and be it further

Resolved, That said publication be printed in the name and under the sponsorship of the California Medical Association.

12. **Exhibits at American Medical Association Meeting.**—It was moved by Councilor Schaupp, seconded by President Morrow, that the Secretary be authorized to contact the American Medical Association and request space for a State Association exhibit during the next session of the American Medical Association. Carried.

13. **Endowment Fund.**—It was moved by Editor Kress, seconded by President Morrow, that all contributions to the endowment fund be set up on the books as "The Members' Endowment Fund" and that the funds so received be then transferred to the jurisdiction of the Trustees Of The California Medical Association. Carried.

14. **Publication of Annual Session Minutes.**—It was moved by Past President Pallette, seconded by Councilor Phillips, that the minutes of the meetings of the House of Delegates be transcribed in detail and that a digest be prepared by the Secretary for publication in the JOURNAL. Carried.

15. **Blind Aid Under Social Security.**—Correspondence regarding aid to the blind under the Social Security Act provisions was presented by the Secretary and was referred to the Section on Ophthalmology.

16. **Reinstatement of Delinquent Members.**—It was moved by Councilor Rogers, seconded by Councilor Phillips, that all physicians whose memberships had lapsed on account of nonpayment of dues and whose dues have subsequently been accepted by the County Society and forwarded to the State Association be reinstated to membership in the California Medical Association. Carried.

17. **Kern County Hospital.**—It was moved by Past President Pallette, seconded by Chairman of Public Relations Committee Dukes, that the matter of residences in the Kern County Hospital be referred to the Council on Medical Education and Hospitals of the American Medical Association. Carried.

18. **Exchanges and Complimentary Journals.**—It was moved by Councilor Schaupp, seconded by Councilor Anderson, that an exchange be granted to the Inter-Society of Radiology. Carried.

19. **Pacific Employers.**—It was moved by Councilor Anderson, seconded by Councilor Wilson that the General Counsel be authorized to prepare a short brief of ten or

twelve pages on the Pacific Employers' Insurance case, and that the expense thereof be authorized by the Auditing Committee. Carried.

20. **Salinas Medical Group.**—The General Counsel advised that he had reviewed the available data on the plan of the Salinas Medical Group and had written a letter to the Monterey County Medical Society Secretary giving the law thereon.

21. **Legislative Session.**—It was moved by Editor Kress, seconded by Councilor Rogers, that a copy of the report submitted by Mr. Peart giving the activities of the legal department during the legislative session be mimeographed and a copy thereof be sent to each member of the Council. Carried.

22. **Advance to County Society.**—It was moved by Past President Pallette, seconded by Councilor Anderson, that $200 be advanced to a county society in order to enable it to carry out certain of its society purposes.

23. **Councilor of Eighth District.**—The Secretary presented the resignation of C. E. Schoff as councilor of the Eighth District.

It was moved by President-Elect Roblee, seconded by Councilor Wilson, that the resignation of C. E. Schoff, Councilor of the Eighth District, be accepted with regret. Carried.

The Secretary submitted recommendations for councilor of the Eighth District from the county societies of the district and from the delegates of such societies, all of which nominated Frederick N. Scatena of Sacramento.

Frederick N. Scatena of Sacramento was nominated by Junius B. Harris as councilor of the Eighth District. The nomination was seconded by Henry S. Rogers. There being no further nominations, the Secretary cast the ballot of the Council and the Chairman announced the unanimous election of Frederick N. Scatena as councilor of the Eighth District for the unexpired term, ending 1939.

24. **Appreciation.**—Chairman of Public Relations Committee Dukes expressed the appreciation of the Council for Dr. Irvin Abell's visit to California and the able assistance he had rendered.

25. **Date of Next Council Meeting.**—The Chairman of the Council was authorized to select a date for the next meeting of the Council and advise the councilors thereof.

26. **Adjournment.**—There being no further business, the meeting adjourned.

MORTON R. GIBBONS, *Chairman.*
F. C. WARNSHUIS, *Secretary.*

ASSOCIATION ACTIVITIES

THIS MONTH'S TOPICS*

ASSOCIATION ACTIVITIES

1. *Postgraduate Conferences.*
2. *Frederick W. Scatina, Councilar for Eighth District.*
3. *Sister State Editors, Please Copy.*
4. *Association Nights.*
5. *Third Annual Conference of County Secretaries.*
6. *Appreciation to Junius B. Harris.*
7. *Passing Events.*

DEPARTMENT OF PUBLIC RELATIONS

1. *Investigation and Exposure of Medical Frauds.*
2. *Abstract of Committee Meeting.*
3. *County Secretaries and Societies—Attention, Please.*
4. *Regulations Governing Drug Dispensing.*

POSTGRADUATE CONFERENCES

The Committee on Postgraduate Work announces its program in a supplement that each member will receive with this issue of the JOURNAL. You are urged to read it and to aid your district councilor and your county society in initiating this program in order that you and your fellow members may benefit from these graduate opportunities.

The State Association does not purpose entering into the domain of medical education. That is a function of the medical colleges.

The State Association does, however, recognize that it has a definite obligation to provide opportunities for its members to remain abreast of scientific progress in order that they may apply modern and accepted methods in the medical services that they render. In so doing, the Association applies its resources to raise the standards of practice and medical care, and insures a wider scope of adequate medical care in California. The profession and the public will benefit by reason of this organizational activity. The Association demonstrates anew what has always characterized organized medicine, namely, that the medical profession within itself and through its organized units is the first to institute measures that enhance the health welfare interests of the public.

The committee has by no means completed or perfected its program. Many details and problems must still be developed, and methods still require constant observations and consideration before the desired objectives will be attained. This first announcement is far from being complete. It is, however, a splendid beginning. As time passes and experiences are studied, the committee will endeavor to better systematize and perfect its program. To that end suggestions are solicited.

Further comment at this time is not indicated. Read the supplement with its foreword and committee statement. You will learn as to how this program may be secured for your district; then join your fellow members in instituting these opportunities for your mutual advantage and as an additional benefit of membership in your county and state medical organization.

FREDERICK N. SCATENA, COUNCILOR EIGHTH DISTRICT

After two terms of faithful, active, and devoted service, Dr. C. E. Schoff of Sacramento felt impelled to relinquish some of his organizational activities. In consequence, he tendered his resignation as councilor of the Eighth District. On October 3, the Council accepted his resignation with regret and tendered to Doctor Schoff a vote of appreciation for his efficient services.

The county societies and the delegates of that district were requested to submit nominations for a successor. Dr. Frederick N. Scatena of Sacramento was unanimously elected by the Council on October 3 as councilor of the Eighth District, to serve for the unexpired term of Doctor Schoff, upon the unanimous nominations of the district.

Doctor Scatena, as a new member of the Council, brings a record of faithful organizational activity in his county, district, state committees, and House of Delegates. These furnish a background that is commendable, and enable Doctor Scatena to assume his councilor duties with full familiarity with organizational affairs in California and the responsibilities of a councilor.

* * *

To the Association Secretary:—Your letter of the 4th inst. was received. I wish to thank you and the members of the Council for the esteem which they have shown me in this election. My only wish is that I may be able to serve the Council and my District as well and as efficiently as has Doctor Schoff. With the help and leadership such as the members of the Council and officers can give, I may be able to succeed in some small measure.

Doctor Schoff told me that the county societies in the Eighth District had been visited once this year; however, if it is necessary to call again, I shall be most happy to do my part.

Yours sincerely,
F. N. SCATENA, M. D.

SISTER STATE EDITORS, PLEASE COPY

San Francisco and the California medical profession are honored and proud that the 1938 annual session of the American Medical Association is to be held in San Francisco, June 13 to 17. Plans are under way and committees have been at work to make this a notable and memorable session. Every endeavor will be made to cause all in attendance to be the recipient of the famed California hospitality. A cordial invitation is extended to not only attend the annual session, but also to plan to spend as much time as possible in visiting sections of California to see its scenic grandeur, its wonderful parks, its mountainous areas, and its fertile valleys with highways unequaled.

It is pleasing to note that several state medical journals have editorially urged members to plan to attend and to join special groups and trains for the westward trip. The

*All articles listed under the caption, "This Month's Topics," have been written and sent to the Editor by the Association Secretary, Dr. Frederick C. Warnshuis.

headquarters office of the California Medical Association will be happy to advise and give information to these groups that are planning a Pacific Coast tour.

There is but one request. In referring to the meeting place, please say "San Francisco," and not "Frisco." San Francisco, with its rich historical background, its Golden Gate, its wonderful harbor, its seven hills, parks, homes, public buildings, bridges, climate, and citizens, has pride in the connotation of San Francisco.

American Medical Association 1938 Annual Session at San Francisco—Hotel Reservations

The Board of Trustees of the American Medical Association has appointed Dr. Howard Morrow of San Francisco, President of the California Medical Association, as chairman of the local Committee on Arrangements for the annual session of the American Medical Association that is to be held in San Francisco the week of next June 13. Doctor Morrow will be assisted by a number of subcommittees, which he will appoint and announce at a later date.

Contracts have been executed with all of the leading hotels of San Francisco, and all reservations for hotel accommodations will be cleared through a central Hotel Committee. All hotels have agreed to clear no reservations unless they are received through the central Hotel Committee. Do not write direct to any hotel. Send in your reservations to the Hotel Committee, of which Dr. F. C. Warnshuis, Suite 2004, 450 Sutter Street, San Francisco, has been appointed chairman.

It is well to remind members that none but fellows of the American Medical Association can register and attend the annual session. Admission will be by badge only, which is issued upon registering.

To become a fellow of the American Medical Association it is necessary for one to belong to a county and state medical association. Then one must apply for fellowship on a prescribed blank which must be countersigned by the state secretary. This blank must then be sent to Dr. Olin West, Secretary of the American Medical Association, with a remittance of the annual dues of $7 per year. In addition to being a fellow, one receives the *Journal of the American Medical Association.*

There are a certain number of members who believe that they are fellows because they send in subscriptions to the *Journal of the American Medical Association* each year but who have neglected to make special application for fellowship. Unless you have a fellowship card you are not a fellow and cannot register.

Fellowship application blanks may be obtained from the State Secretary. If you are not a fellow, but desire to attend the 1938 annual session, it is urged that you send in your application by January 1. Also that you write early for your hotel reservation. Desirable rooms will be at a premium in April and May. Almost two thousand hotel reservations have been made to date. You will be greatly disappointed if you neglect attending to this detail.

ASSOCIATION NIGHTS

On September 16 and 17, Councilors Anderson and Packard and the Association Secretary visited the regular meetings of the Merced, Kern, and Fresno county societies.

The Merced meeting was a noon luncheon, with a very fine turnout of members.

The Kern and Fresno meetings were night sessions, and with each of these counties presenting a good majority of their members in attendance.

Local and State problems were reviewed during a more or less informal discussion, and questions and answers. Such conferences make for better understandings, are informative and inspiring, and tend to bring about greater and more satisfactory results from organizational activities. They cement our thirty-nine county units into a State organization that is united in purpose and action. During the coming months, visits will be made to every county organization.

THIRD ANNUAL CONFERENCE OF COUNTY SECRETARIES

On October 2, in San Francisco, seventy-two county secretaries, committeemen, and councilors attended the all-day session of the third annual conference of county secretries and members of standing committees.

A distinguished guest speaker was Dr. Irvin Abell of Louisville, Kentucky, President-Elect of the American Medical Association. Doctor Abell delivered an address on the economics of medicine. In its clarity, soundness of thought, and analysis of conditions and trends, Doctor Abell's address was the finest exposition of the subject ever given before any medical gathering. Doctor Abell also attended the Council meeting on Sunday.

Standing committees held sessions between 9 and 10 in the morning and during the noon recess. The announced program was carried out in detail, with Chairman Gibbons presiding. The conferences adjourned at 4:30 p. m., following a general summary by the State Secretary.

The conference inspired anew those in attendance to intensify organizational activities and cause them to expand, to the end that greater benefits will accrue to all members and indirectly to the public.

Those in attendance, in addition to the twenty-five officers and councilors, were:

G. W. Walker, Fresno; Lawrence A. Wing, Eureka; C. S. Compton, Bakersfield; W. A. Johnstone, Hanford; John V. Barrow, Los Angeles; A. Elmer Belt, Los Angeles; Fred B. Clarke, Long Beach; John B. Doyle, Los Angeles; Ralph B. Eusden, Long Beach; George D. Maner, Los Angeles; Orville N. Meland, Los Angeles; William R. Molony, Los Angeles; B. O. Raulston, Los Angeles; E. T. Remmen, Los Angeles; John C. Ruddock, Los Angeles; Philip Stephens, Los Angeles; R. W. Swinney, Long Beach; Clarence G. Toland, Los Angeles; Howard F. West, Los Angeles; A. H. Zeiler, Los Angeles; S. K. Cochems, Los Angeles; M. M. Booth, St. Helena; Harry E. Zaiser, Orange; C. Glenn Curtis, Brea; Robert A. Peers, Colfax; H. L. Ratliff, Riverside; G. E. Millar, Sacramento; F. E. Clough, San Bernardino; Arthur E. Varden, San Bernardino; Lyell C. Kinney, San Diego; Willard H. Newman, San Diego; George H. Rohrbacher, Stockton; Dewey R. Powell, Stockton; William H. Eaton, Santa Barbara; Leslie J. Seeley, Redding; A. A. Morrison, Santa Paula; F. W. Didier, Wheatland; Gertrude Moore, Oakland; Stanley Mentzer, San Francisco; George G. Reinle, Oakland; Alson Kilgore, San Francisco; Harold Brunn, San Francisco; Nelson Howard, San Francisco; H. J. Ullmann, Santa Barbara; M. R. Makinson, Oakland.

The following are individual comments:

"I enjoyed the meeting of the Third Annual Conference of County Secretaries very much. I also enjoyed meeting Doctors Abell, Gibbons, and Harris. I was particularly impressed by the talk of Mr. S. K. Cochems. We need speakers here to give us salesmanship and other pointers. I know that Shasta County Society would welcome a member of the Speakers' Bureau at each meeting. I would be pleased if you could let me know how we may contact him for an available speaker."

* * *

"It was well worth my time to attend the Third Annual Conference of the County Secretaries and committeemen. A number of things were of special interest: (1) Postgraduate opportunities are going to be made possible for doctors out in the rural districts in the State of California. (2) The advice to doctors on how to educate the public was practical and good counsel. (3) To see Dr. and Mrs. J. B. Harris receive a gift for their good work in behalf of the medical profession was excellent. (4) President-Elect Irvin Abell's address was a great collection of ideas which show that the author is very considerate of the medical profession."

* * *

"While the Conference is very instructive and there is considerable pleasure in meeting and rubbing shoulders with the men who are doing things for the California Medical Association, yet I feel that the whole arrangement is uneconomical because of the total aggregate loss in time of those attending and also the monetary cost to the Association. It would seem to me that the councilors in the various districts could convey to us all the information that was essential for us to have at their various meetings with the county societies or preferably at a meeting with the Board of Directors and officers of each county unit. I believe that it is necessary for the councilors to attend several councilors meetings a year, at which a policy is discussed and settled, and I believe it is also obligatory for the various councilors to visit the component societies in their district at periodical intervals and by this arrangement there would be the saving in total hours, in travel and attendance at these annual meetings of secretaries, and also considerable saving to the California Medical Association in transportation costs.

"If it were deemed essential to have a meeting of secretaries of the component medical societies, I would suggest that the by-laws of the California Medical Association be amended to make the secretary of each county society a delegate to the California Medical Association convention, at which time the meeting could be held. This might require the amending of each component society's by-laws to conform with that of the California Medical Association, but that could be easily accomplished."

"The value of the Third Annual Conference of County Secretaries and committee members cannot be measured concretely, but need not stop with the increased understanding and interest of those attending. If each officer will take the charts to be published in the California Medical Association journal and go over them with their component groups, widespread dissemination of useful information may be made possible with consequent increased emphasis placed upon the value of membership."

* * *

"I consider the address of our American Medical Association president-elect a masterpiece, and think it should be in the hands and read by every physician and political office holder in the country. Personally, I would advocate a militant attitude toward predatory politicians who stand for social medicine. In all probability the difference that doctors now receive will line the politician's pocket instead."

* * *

"The last meeting of the secretaries of the component county societies of the California Medical Association was a real one. I should like to thank you personally for the manner in which it was conducted. As you realize, the real highspot was Irvin Abell. The boys are still talking about the meeting and Doctor Abell."

* * *

"I think that this meeting was well worth while—as should be any meeting which brings together county and state officers and members of committees.

"I was particularly pleased with the response of the various committees and the fact that all the committees are working. Such meetings as we had on October 2, where the various committee chairmen must report on the activities of their committees, keep everyone on his toes. Too frequently in the past, committees have been inactive, due largely to the fact that the members are scattered throughout the State, and no such stimulus, such as the recent meeting, has been present to activate the members.

"I am sure that these annual conferences are going to be of immense value in keeping our members throughout the State acquainted, through the secretaries, with medical activities, and, as a result, will further our plans for a more perfect welding together of the State membership."

* * *

"I have been fortunate in being able to attend all three of the conferences for county society secretaries. They have all been stimulating and educational from a secretary's standpoint, and I have found them very profitable.

"This last meeting was up to standard, and I have no comments to make other than that it was a rare privilege to hear Doctor Abell, and an October meeting is much more satisfactory to me than the mid-winter meeting.

"Whenever possible I believe it is well to have an officer of the American Medical Association on the program, as you have had the past two meetings."

* * *

"In answer to your letter of October 6, requesting comments on the annual conference, I feel that these meetings are of tremendous help and benefit to the county secretaries. It gives the secretaries an opportunity to get, in condensed reliable accurate form, the policies of the California Medical Association.

"However, I would like to suggest that these meetings could be made a bit more helpful if an hour were given to definite instructions regarding the routine duties of the secretary, showing the reason and importance of each duty."

* * *

"May I congratulate you for what seemed to me the very best meeting of the county secretaries held by the California Medical Association on Saturday, October 2, 1937? I found the meeting more profitable and more enjoyable than any others that I have been privileged to attend."

* * *

"As secretary of the Napa County Medical Society, it is my belief that these meetings are highly profitable to the secretaries and to the membership of the California Medical Association in general. From these meetings it is possible for us to convey to our local societies the various problems which confront the profession and which are vital both to our own membership and to the health of the State of California. It is my wish that such meetings may be continued in the future."

* * *

"I have attended all three of the secretaries' conferences and I feel that each one has been a little better organized and instructive than the one preceding. As a suggestion, I think some means should be sought to get the various county representatives to discuss their more important local problems; I think a brief discussion of these meetings would be of value to other counties of similar conditions and population."

* * *

"The meeting was interesting and useful. I enjoyed it. There was much food for thought. We were well taken care of.

"I wish every member of the profession could have heard Doctor Abell's paper read; also that it can be published to the laity. Our membership, our wives, our office assistants, are in for a fight on those initiative measures especially. Some balancing type of publicity must be forthcoming to offset these associations of sheriffs, county employees, Farm Grangers, etc., the great army of leftists, and would be recipients of more unearned favors."

APPRECIATION TO JUNIUS B. HARRIS

To evidence in a substantial way the appreciation of many for the services rendered by Doctor Harris as chairman of the Committee on Public Policy and Legislation, personal subscriptions made this possible. Just before the Conference adjourned for luncheon, Chairman Gibbons addressed the Conference in the following manner:

At this time I feel that I must present to this conference a serious matter that deserves your close and careful consideration.

During the last month of the recent session of the State Legislature, and subsequent thereto, even as late as this morning, rumors, comments, remarks, have filtered through official, as well as other devious channels, that were concerned and related to our Association's legislative interests and activities. The earnestness and sincerity back of these statements, coming from members whose motives could not be questioned, and the insistency of repetition, does not permit me to ignore them further.

Yesterday I learned that an unofficial, self-constituted and self-appointed committee, composed of past officers, councilors, and a few members of our Association, had taken cognizance of the situation. This self-created committee, I learned, undertook an investigation. I am informed that they interviewed members of the Legislature, chairmen of legislative committees, lobbyists, officials, and even went so far as to obtain sworn statements from innkeepers, and proprietors of the elite as well as the lesser reputable night clubs and Japanese resorts in Sacramento.

As a result of the evidence obtained and the facts that were substantiated, this unofficial committee again conferred and drafted a report. This report has been submitted to me. I shall now ask the secretary to read that report for your consideration.

* * *

The secretary read the report, which follows:

"In appreciation: To 'June' and 'Hazel' Harris.

"The officers and members of the Council of the California Medical Association, together with certain past officers and councilors, join in tendering to you this chest of silver. May it always recall to you our expressions of esteem and assure you of our very genuine appreciation for your most generous and willing contribution of your time and ever constant efforts in conserving the interests of the medical profession.

"We are mindful of the personal sacrifices that you have made and realize that we can never adequately compensate them. To us there is the satisfaction of a trust well reposed. To you, we hope, comes a satisfaction in knowing that your labors are recognized and appreciated.

"We are also mindful of the fact that 'Hazel' has not only been your helpmate, but that she, too, has made many personal contributions and sacrifices. We are fully aware that 'Hazel' has been compelled to adapt herself and home to the demands made upon 'June' frequently; often at a moment's notice she has been called upon to be hostess and rearrange her plans. This she has done cheerfully in a spirit of gracious hospitality.

"For all these and many other contributions and services rendered, we tender to 'June' and 'Hazel' our thanks, and emphasize it with this chest of silver. Accompanying it are all of our good wishes that health, contentment, and the joy of friends may attend both of you for many, many years."

* * *

"June" and "Hazel," I have no alternative—I would not desire one. It is, therefore, my privilege to present to you and Hazel this tangible expression of our thanks, appreciation, and esteem, on behalf of this unofficial committee.

Although taken by total surprise, Doctor Harris responded, expressing his thanks.

PASSING EVENTS

"There is one thing that is stronger than armies; and that is an idea whose time has come."—Ponder on that.

* * *

"The present is in every age merely the point at which the past and future meet. There is never a moment when the new dawn is not somewhere breaking over the earth and never a moment when the sunset ceases to die. We should greet the new dawn serenely, not hastening to it with undue speed nor yet leaving without regret the dying light that once was dawn."

* * *

Dr. Meyerding, Secretary of the Minnesota State Medical Society, was a welcome caller on October 6. Minnesota has economic problems comparable to those of California. The Society is evidencing concerted activity in meeting them.

* * *

The application of the recently enacted law relating to dispensing of drugs is outlined by the secretary of the Pharmacy Board in the Public Relations Department of this issue. It is important that you read these regulations.

* * *

Several new advertisements appear in this issue. Read them. Your preference in patronizing all of our supporting advertisers is an obligation that should not be neglected.

* * *

Interesting Auxiliary reports appear in every issue—your wife, mother, sister, or (?) will be interested in them.

* * *

No matter what enactments legislatures may adopt, industrial hygiene and safety will never be secured until the workers, themselves, are educated in regard to the dangers incidental to particular trades and become willing to join in observing safety and preventive regulations. Employees and employer must evidence mutual trust.

* * *

County societies would do well to sponsor and conduct a series of three to six public meetings on Sunday afternoons. At these meetings capable speakers should present dependable facts related to disease and preventive medicine. Education of the public in regard to county and private health will be a powerful factor in defeating the quest of irregulars and quacks. Consideration should be given to this feature of county society work.

* * *

Surely, Robert A. Peers is not the only member to contribute $100 to an Association endowment fund. (See September issue, editorial.) It is desired that five hundred members remit a $100 subscription each. You, fellow member, will you send in your $100 this month? You can make it in two or four payments, if you wish. Please assist in establishing this initial endowment fund nucleus. It would be fine if county societies, as a society, would subscribe to this fund, in addition to personal subscription of members.

* * *

Since the above was written, Dr. Charles A. Dukes of Oakland became subscriber number two by sending in his check for $100. This leaves 498 subscriptions still to be subscribed. Shall we receive yours?

* * *

The Suppplement accompanying this issue contains information that is of tremendous value to each member. You are invited to acquaint yourself with its contents.

* * *

It does seem desirable to dwell upon the "spirit of coöperation" because, rightly employed, it is fraught with potent power. At times members are woefully reluctant to coöperate. Each is inclined to travel his own way, letting the other fellow do the same. Members are jealous individuals—sometimes overly narrow in their spirit of living and let live. In our inner inwards we strive more to obstruct than to press forward.

Great is the duty we owe to our profession and so, too, great is the duty we owe to each other—but how often do we forget! So let us coöperate a bit more and unite our efforts to advance our group guild interests.

C. M. A. DEPARTMENT OF PUBLIC RELATIONS†

Investigation and Exposure of Medical Frauds

Our state and county medical organizations are not police officers nor are they law-enforcing agents. Violations of local and state laws become the responsibilities of law-enforcement officers—sheriff, police, and district attorney or special enforcement officers. The manner in which these officers proceed against violators far too often depends upon who is involved, their political influence and votes for reëlection. A sad, but true commentary upon law enforcement.

Every day many violations are winked at and steps for prosecution are neglected. These violations by quacks, impostors, racketeers and manufacturers in the field of health, medicine and pharmacy, result in the loss of lives and in irreparable damage to individuals. The law winks, but the toll of death and physical suffering and disabilities accrue by reason of unrestricted operations of these nefarious groups and rackets. The people pay a heavy penalty.

It is estimated that $10,000 a year would make it possible to expose and sign complaints against those who thus traffic in human lives and health of people in California. That being so, is there not someone or some lay group that will volunteer to organize, raise the fund, and undertake such a campaign to safeguard our people and rid California of these rackets? Such an undertaking merits the consideration of existing lay organizations, and it is hoped that someone will initiate this movement.

Abstract of Committee Meeting

Chairman Dukes commented upon the following activities of the committee at the meeting held during the conference on October 2.

Present Activities.—During the past three years this committee has initiated and maintained the following activities:

Advisory to departments of State government in matters related to public health welfare.

Director serves as medical adviser to the Division of Automobile Drivers' Licenses when questions of physical defects and disabilities arise. This is a confidential service.

Health Committee of the Parent-Teachers' Association.

Health Committee of Y. W. C. A.

Public Libraries—Advising as to purchase of books on health and medical care.

Advisory to Associated Press.

Press releases to 250 newspapers.

Lay Information Bureau—Answering some thirty mail inquiries per month.

Arranging for speakers for lay meetings.

Director has just been elected vice-commander, and next year will be commander of the Daylight Post of the American Legion, thereby establishing official contact with the higher councils of the State Department of the American Legion. A valuable contact.

Supervision and approval of proposed and operating plans for hospitalization insurance.

California Medical Association Forestry Medical Service in conjunction with Federal and State Forestry Services.

Director is serving on the Advisory Committee of the Hall of Science of the Golden Gate International Exposition. Weekly meetings of committee, of which Chauncey Leake is chairman.

Proposed Expanding Activities: (For approval.)

State Speakers' Bureau to provide speakers for lay meetings and to urge auxiliaries to sponsor more lay meetings.

Formation of a "State Joint Committee on Public Health Education," composed of representatives of California Medical Association, Dental Association, health officers, Red Cross, Nurses' Association, Safety Council, Hospital Association, Teachers' Association, Parent-Teachers' Association, Pharmacists' Association, medical colleges, Department of Education, and Boy Scouts. (To hold quarterly conferences.)

Editorial Committee, to prepare health articles for scheduled releases to the press.

† The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. Charles A. Dukes of Oakland is the chairman, and Dr. F. C. Warnshuis is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. F. C. Warnshuis, Room 2004, Four Fifty Sutter Street, San Francisco.

Doctor Crosby discussed the plans and operating experiences of the Insurance Association of Approved Hospitals of Alameda County.

The publicity educational program presented by Dr. Fred B. Clarke, as outlined in another item in this issue's Department report, was approved. The Director was instructed to transmit this plan to county secretaries with the request that it be applied in each county.

The Director requested that he be authorized to solicit members for articles for newspaper release, approved.

The Director recommended that the Committee on Public Relations sponsor and initiate the organization of a Joint Committee on Public Health Education, such committee to be composed of two representatives of each state organization that is concerned with public-health welfare and medical care for the purpose of conducting a program, state-wide, of public education. The recommendation was approved and the Director was instructed to arrange for an organizational meeting.

The Director was instructed to contact the Inter-Coast Hospitalization Insurance Company relative to policy rider covering laboratory services.

County Secretaries and Societies—Attention, Please

During the Conference of County Secretaries and Committees, held on October 2, Dr. Fred B. Clarke, Chairman of the Committee on Health and Public Instruction, presented the plan outlined below. It was approved, and county secretaries and societies are urged to inaugurate the plan in their respective communities. A local committee should be placed in charge and bring about operation of this excellent plan. This should be one of your major activities this fall and winter.

The following program is suggested by the Committee on Health and Public Instruction:

An educational program whose major objective is to familiarize the people regarding tuberculosis and heart disease, especially among children of the school age.

The program is to be sponsored by local Medical Associations in various towns and counties, Health Departments, Anti-Tuberculosis Associations, Woman's Auxiliary, and the Parent-Teachers' Association.

Educational activities in the schools can be conducted by the Parent-Teachers' Association, Medical Associations, and Health Departments, in the way of tuberculin tests, etc.

These two programs may be carried out as follows:

It suggested that the first program be on tuberculosis, and that the following medium be used:

1. Four articles at weekly intervals in the press, written and prepared by members of the Association, health officers, etc.

2. An announcement of such a program by local radio stations, and one or two fifteen-minute talks by physicians over the radio.

3. Four leaflets, to be prepared by physicians, dealing with various phases of tuberculosis, such as early recognition in school children by tuberculin tests, early symptoms of tuberculosis, care of tubercular patients, and importance of recognition of contacts.

The above information can be easily secured through coöperation with the local Tuberculosis Association or can be written by various physicians interested in the subject of tuberculosis.

These inserts can be, and I know will be, wrapped in packages in stores, such as department stores and drug stores. Each insert is to deal with a different phase and to be delivered the first of each week, and it is suggested that the Auxiliary would be glad to see that such deliveries are made.

4. Practically every city of any size has an advertising medium delivered once a week to every home. They can be induced to coöperate by carrying a suitable message.

5. Coöperation of utility companies to the extent that a small insert dealing with the prevention of tuberculosis can be enclosed in their monthly statements.

The submitted program is inexpensive. It can be carried out in cities of 160,000 for approximately $160. It is possible in this way to reach each and every home in the city.

It is suggested that the program on tuberculosis be instituted the first of December in order that great interest can be created in this subject and, incidentally, promote the sale of Christmas Seals, thereby giving the Anti-Tuberculosis Association funds with which to carry on their work. We feel that a similar program upon heart disease, especially among young people, can be carried out in the spring.

Regulations Governing Drug Dispensing

The Board of Pharmacy has issued the following opinion which is of importance to every physician, dispensary, and hospital.

In a sweeping opinion of Attorney-General U. S. Webb, hospitals were required to employ pharmacists for the dispensing of medicines, except in such cases where the physician dispensed medicine to his own patient.

Honorable W. M. Fulton
Secretary, California State Board of Pharmacy
450 McAllister Street
San Francisco, California
Dear Sir:

I have your letter dated June 16, 1936, reading as follows:

"Our inspector made a report on the Merced County Hospital. He found there a well-equipped drug store, including narcotic and barbituric preparations. No pharmacist was employed there, the dispensing being done by a young woman. A small assortment of these drugs is also kept on the floors, where they are dispensed by nurses.

"Our inspector told the manager he should employ a pharmacist. The manager took the matter up with the Merced County Board of Supervisors, who referred the matter to the District Attorney, who gave them his opinion that the pharmacy law does not extend to hospitals.

"We understand they will employ a pharmacist if they have to, but want an opinion from the Attorney-General as to whether they have to.

"Does the law exempt a hospital from having a registered pharmacist in charge and a drug-store permit if the hospital has a stock of drugs in the building?

"A written opinion will be appreciated."

Section 1 of the State Pharmacy Law, Statutes 1905, page 535, as amended, reads in part as follows:

From and after the passage of this Act it shall be unlawful for any person to manufacture, compound, sell, or dispense any drug, poison, medicine or chemical, or to dispense or compound any prescription of a medical practitioner, unless such person be a registered pharmacist or a registered assistant pharmacist within the meaning of this Act, except as hereinafter provided. Every store, dispensary, pharmacy, laboratory or office for the sale, dispensing or compounding of drugs, medicine or chemicals, or for the dispensing of prescriptions of medical practitioners, shall be in charge of a registered pharmacist.

The following provision is found in Section 12 of the same Act:

Nothing in this Act shall apply to or interfere with anyone who holds a physician's and surgeon's certificate who is duly registered as such by the State Board of Medical Examiners or the State Board of Osteopathic Examiners of this State, with supplying his own patients as their physician, and by them employed as such, with such remedies as he may desire, and who does not keep a pharmacy, open shop or drug store, advertised or otherwise, for the retailing of medicine or poisons, . . .

In *People* vs. *Cohen*, 157 N. Y. S. 591, the Court construed the word "dispense" as used in a statute requiring the keeping of certain records by persons authorized to sell or dispense drugs, as follows:

To "dispense" is to deal out; to distribute; to give. *Johnson vs. City of Chattanooga*, 97 Tenn. 247, 36 S. W. 1092; Words and Phrases Judicially Defined. A "prescription" is a mere formula for the preparation of a drug and medicine. It may be filled or not, as the person to whom it is given elects; but until it has been filled and the substance delivered, we think there is no "dispensing" of the drug itself.

I quote further from the decisions:

A "dispensary" is a place where the drug is prepared or distributed. We, therefore, are of the opinion that a physician who merely writes a prescription and does nothing more cannot be said to "dispense" the drug or article described in the prescription. It is well known that many physicians do in fact keep on hand and deliver to their patients medicine which they prescribe. Others do no more than write the prescriptions and give it to the patient to have it prepared and filled by the druggist or pharmacist.

These definitions are in accord with those found in Webster's New International Dictionary and in Words and Phrases Judicially Defined.

As I understand the situation, as described in your letter and your subsequent oral communication, a stock of drugs

is kept on hand in the Merced County Hospital, and one of the nurses therein, as well as the superintendent of the hospital, does from time to time, on the order of some one of the several physicians who have patients in the hospital, take drugs and medicine from said stock and give them to nurses for administration to patients under their charge.

I think there can be no question that the stock of drugs in said hospital from which medicine and drugs are taken for administration to patients is a "dispensary" within the meaning of Section 1 of the Pharmacy Act above quoted.

Dealing with drugs and medicines in the manner above described is contrary to the provisions of the State Pharmacy Law. In my opinion, it cannot be said that a doctor is "supplying his own patients as their physician . . . with such remedies as he may desire" when medicines are taken from stock and given to nurses in this way. The evident reason for the exception of physicians from the requirements of the Pharmacy Act as provided in Section 12 thereof is that physicians are presumed to have a technical knowledge of drugs and medicine which will enable them to dispense the same with safety to their patients, provided they do so directly and not through an intermediary, such as a pharmacist or assistant pharmacist.

In the case which you state, the drugs and medicine are really being dispensed by the superintendent and nurses, and not by the physician. It is my opinion that if it is not practical for the physicians having patients in the Merced County Hospital to dispense drugs and medicine directly to their patients, the Pharmacy Law can be complied with only by putting a registered pharmacist in charge of the stock of drugs and medicines in said hospital.

You ask further whether the hospital should be required to take out a drug permit.

A pharmacy is defined in Section 1 of the State Pharmacy Law as follows:

> Every store or shop where drugs, medicines or chemicals are dispensed or sold at retail, or displayed for sale at retail, or where prescriptions are compounded, which has upon it or in it as a sign the words "pharmacists," "pharmaceutical chemist," "apothecary," "druggist," "pharmacy," "drug store," "drugs," or any of these words shall be deemed a "pharmacy" within the meaning of this Act, and no store or shop shall use the words "drug" or "drugs" in any advertisement or display unless a licentiate is in charge.

Section 1½ of the law requires all owners of pharmacies or drug stores to be registered with the California Board of Pharmacy. The fifth paragraph of said section provides as follows:

> It shall be the duty of the Board to issue a permit to conduct said pharmacy or drug store, if all of the provisions of the law have been complied with upon making an application and paying the fee of one dollar for each and every drug store or pharmacy, and shall be renewed annually at the same rate on or before November 1 of each year.

It is not possible from your statement of the facts to determine whether the dispensary in the Merced County Hospital falls within the above-quoted definition of a pharmacy. If it does in fact fall within such definition, a permit must be issued to operate it, as required by Section 1½ of the Pharmacy Act.

Very truly yours,

U. S. Webb, *Attorney-General.*

(Signed) Lucas E. Kilkenny, *Deputy.*

The Board is notifying all hospitals throughout the State of the opinion, and requesting their immediate compliance to these provisions.

COMPONENT COUNTY MEDICAL SOCIETIES

SAN BERNARDINO COUNTY

The annual meeting of the San Bernardino County Medical Society was held at the Fontana Farms Inn, on Tuesday, October 5. Dinner was served to about fifty-three members and guests.

The application for membership of Dr. Ben D. A. Miano was favorably voted upon.

Dr. C. L. Emmons, Chairman of the Committee for Tuberculous Service, reported that, after several meetings, the following had been recommended by the committee:

1. That all care of tuberculous patients be under medical supervision.
2. That a part-time specialist in tuberculosis be named to supervise the hospital care of patients.
3. That there be some coördination with the nursing agencies already in existence, and that more public health nurses be employed as funds will permit.
4. That the number of hospital beds for tuberculous patients be increased as funds will permit.

The following officers were nominated for the years 1937-1938: Delbert B. Williams, president; V. M. Pinkley, first vice-president; Floyd Gardner, second vice-president; and Arthur E. Varden, secretary-treasurer.

It was moved and seconded that the Society cast a unanimous ballot for the above-named officers. Passed.

Retiring President Mock presented the new president, Doctor Williams, who made a short speech of acceptance.

Dr. D. C. Mock gave as his address, as the retiring president, *Progress in Medicine.* In closing, Doctor Mock suggested that the history of the Society be compiled by a committee.

It was moved and seconded that the president appoint a committee to compile and write the history of the San Bernardino County Medical Society. Passed.

The president introduced the Hon. C. E. Greer, Chairman of the Board of Supervisors of San Bernardino County, who addressed the Society on *Welfare Problems as They Affect San Bernardino County.*

Arthur E. Varden, *Secretary.*

SAN JOAQUIN COUNTY

The regular monthly meeting of the San Joaquin County Medical Society was held on October 7 in the Medico-Dental clubrooms, Stockton.

A letter from Doctor Doughty of Tracy, which urged that the local health district furnish vacuum tubes for collecting blood samples, was read. Doctor Sippy stated that this was being considered.

Applications for membership were accepted by J. J. Seibel of Lodi and Orvin P. Fryc of Stockton.

Doctor McDonald of Sacramento spoke on the present status of the Intercoast Hospital Insurance Company and told of its growth in the last several years.

The paper of the evening was given by Dr. George H. Sanderson of Stockton, who presented a paper, illustrated by specimens, slides, and x-rays, on *Treatment of Intra-Capsular Fracture of the Hip.* The paper was very well received and many questions were asked.

G. H. Rohrbacher, *Secretary.*

CHANGES IN MEMBERSHIP

New Members (36)

Alameda County

D. J. Manley
R. B. Penzotti
Harold Sipman

Los Angeles County

Hugh Brown
Norman F. Crane
A. M. Dodd
Herman C. Epstein
Leo W. Fate
David H. Fink
Theodore M. Hiatt
Elizabeth B. Hoyt
Marshall Y. Kremers
E. L. Mariette
Ross V. Parks
Lucius B. Phelps
Charles Posner
Frederick G. Reynolds
Victor G. Rubenstein
Morris J. Schiff
Harry Schultz
Jacob Jesse Singer
Grace F. Thomas
James I. Wargin

Merced County

Paul W. Schriber

San Diego County

Gerald F. Banks
Edward H. Calvert
William C. Satterlee

San Francisco County

Maurice Eliaser, Jr.
Mark Gerstle, Jr.
Modesto Giordano
Edward Francis Healey
Robert Edward Merritt

Santa Barbara County

Adrian F. Burkard

Shasta County

Malcolm Wilmes

Sonoma County

John F. Thurlow

Santa Cruz County

Reinhard J. Bachrach

Transerred (1)

Rudolph L. Dresel, from San Francisco County to Santa Clara County.

Resigned (1)

M. Elizabeth Jenkins, from San Francisco County.

In Memoriam

Bell, Mabel T. Died at Ventura, September 27, 1937, age 53. Graduate of College of Physicians and Surgeons, San Francisco, 1920, and licensed in California the same year. Doctor Bell was a member of the Ventura County Medical Society, the California Medical Association, and the American Medical Association.

✝

Otis, Margaret Ruth. Died at Los Angeles, September 24, 1937, age 57. Graduate of Michigan College of Medicine and Surgery, Detroit, 1905. Licensed in California in 1925. Doctor Otis was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✝

Peery, John Thomas. Died at Corcoran, September 27, 1937, age 61. Graduate of the University of Southern California School of Medicine, Los Angeles, 1906, and licensed in California the same year. Doctor Peery was a member of the Kings County Medical Society, the California Medical Association, and the American Medical Association.

✝

Schiller, Marie Margaret. Died at Los Angeles, September 12, 1937, age 42. Graduate of Magyar Kiralyi Erzsebet Tudomanyegyetem Orvostudo, Pecs, Hungary, 1922. Licensed in California in 1927. Doctor Schiller was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

✝

Shidler, George Porter. Died at Torrance, September 12, 1937, age 55. Graduate of Northwestern University Medical School, Chicago, 1907. Licensed in California in 1924. Doctor Shidler was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION†

MRS. HOBART ROGERS ..... President
MRS. FRED ZUMWALT ..... Chairman on Publicity

Meeting of Board of Directors

Résumé of the State Board meeting: Perfect concord, a common interest—these were the highlights of the special session of the Woman's Auxiliary to the California Medical Association, when the Officers and Board of Directors met in conference in Oakland, at the Hotel Leamington, on September 29.

† As county auxiliaries of the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Fred Zumwalt, Chairman of the Publicity and Publications Committee, 3880 Clay Street, San Francisco. Brief reports of county auxiliary meetings will be welcomed by Mrs. Zumwalt, and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the Editor to allocate two pages in every issue to Woman's Auxiliary notes.

Mrs. Hobart Rogers, State President, presided. She spoke of our unity of purpose—there are no geographical limits.

The following responded to the roll call: Mrs. Frederick N. Scatena of Sacramento, Mrs. Elliot G. Colby of San Diego, Mrs. H. E. Henderson of Santa Barbara, Mrs. Charles C. Hall of Piedmont, Mrs. Harry O. Hund of San Rafael. Councilors-at-large—Mesdames A. E. Anderson of Fresno, Fred H. Zumwalt of San Francisco. District Councilors: Mesdames Dexter R. Ball of Santa Ana, Benjamin H. Sherman of Hollywood, Lawrence Knox of Carmel, J. C. Geiger of San Francisco, Harold G. Trimble of Piedmont, Robert M. Furlong of San Rafael.

It was gratifying to see so many county presidents, many of whom came long distances. These were Mesdames A. A. Alexander of Alameda, Thomas Gocher of Marin, Hans Barkan of San Francisco, S. W. J. Van Den Berg of Sacramento, F. G. Maggs of San Joaquin, Henry Milo of Santa Clara.

Standing Committees.—Each Chairman briefly outlined her work for the year. Membership and Organization, Mrs. Frederick N. Scatena; Program and Health, Mrs. Elliot G. Colby; Public Relations, Mrs. A. E. Anderson; Public Health, Mrs. J. C. Geiger; Editor and Publicity, Mrs. Fred H. Zumwalt; Hygeia, Mrs. Harold G. Trimble.

The Board appointed a Revisions Committee, with Mrs. Elliot G. Colby as chairman.

All old business was concluded, and much that was new that will prove most interesting was taken up and discussed.

The following resolution was passed.

WHEREAS, By the passing to the long rest of Mrs. John V. Barrow, President-Elect, the Woman's Auxiliary to the California Medical Association has suffered the loss of a loyal member, a competent officer, and an ever constant source of help and inspiration; therefore, be it

Resolved, That we, the members of the Board of Directors in session this twenty-ninth day of September, 1937, pledge ourselves anew to the furtherance of the cause she so faithfully served, that we extend to her husband and to her son our sincere sympathy in their bereavement; and be it further

Resolved, That a copy of this resolution be recorded in the minutes of this meeting, a copy suitably engraved be sent to the family of our deceased friend, and a copy be presented for publication in CALIFORNIA AND WESTERN MEDICINE.

Mrs. Clifford G. Wright of Los Angeles was elected to serve as president-elect, the office made vacant by the death of Mrs. Barrow.

The Los Angeles Auxiliary, as a memorial to Mrs. Barrow, gave $150 to the Lending Library Fund.

Mrs. A. A. Alexander, President of the Alameda County Auxiliary, assisted by the members of her Board, entertained at tea in her Piedmont home, honoring the members of the State Board.

News Letter

Dear Auxiliary Members:—The *Courier,* official publication of the Woman's Auxiliary to the California Medical Association, will be off the press and should be received by every member not later than November 16. If for any reason you do not receive your copy, consult your county auxiliary president. She will have additional copies for distribution.

We, the staff, hope you will enjoy it and we will welcome suggestions for its improvement.

Sincerely yours,

MRS. FRED H. ZUMWALT.

Component County Auxiliaries

Alameda County

The first fall meeting was a luncheon, graciously presided over by Mrs. A. A. Alexander. As president of the Woman's Auxiliary to the Alameda County Medical Society, Mrs. Alexander may well be proud, for the membership numbers over 255 active and interested women. This is the largest enrollment in its history. Monthly meetings are held, at which lectures, book reviews relating to the history of medicine are presented.

Mrs. Frank Baxter, as membership chairman and president-elect, is already making strides in the drive to increase

our rolls. At the meeting held in September, eight new members were cordially received into our Auxiliary.

Mrs. Grant Ellis,
Chairman of Publicity.

✲

Los Angeles County

The first fall meeting of the Woman's Auxiliary to the Los Angeles County Medical Association was held at the County Medical building on Tuesday, September 28, with 128 members present. Mrs. Elliot Alden, the new president, in her usual gracious manner, presented her Board to those assembled.

Dr. Alvin G. Foord, Director of Laboratories at the Huntington Memorial Hospital of Pasadena, was guest speaker. His very interesting talk on *The Diagnosis of Disease by Laboratory Methods* was illustrated by a movie film.

Mrs. Karl Von Hagen read a splendid paper on *The Insulin Treatment of Dementia Praecox.*

Heads of the following standing committees have been appointed and are already proving their ability: Public Relations, Mrs. Hyman Miller; Public Health, Mrs. Arthur J. Annis; Medical Highlights, Mrs. Karl Von Hagen. The other chairmen are: Mesdames Ward M. Rolland, Robert B. Hope, John S. Stephens, Harold E. Crowe, C. E. Futch, E. C. Pallette, and Newell Jones, who are proving equally efficient in their work.

On October 8 a benefit picnic luncheon and bridge will be given at a delightful ranch home of one of the members for the Auxiliary's Philanthropy program for the year: the distribution of baskets at the holiday season and Easter to the needy of the profession in Los Angeles County.

Mrs. Robert L. Carroll,
Corresponding Secretary.

✲

Marin County

The Woman's Auxiliary to the Marin County Medical Society held their first fall meeting on Thursday evening, September 23, at the Marin Golf and Country Club. The Auxiliary joined the Medical Society for dinner, and heard Dr. Albert S. Rowe deliver a very interesting lecture on *Clinical Problems in Allergy.* The lecture was accompanied by slides. Later the Auxiliary held its business meeting in the lounge. Plans for the year were discussed and committee chairmen appointed.

Mrs. R. B. Hartman,
Publicity Chairman.

✲

Orange County

The Woman's Auxiliary to the Orange County Medical Association held its first fall meeting, a luncheon, at a "Bit of Scandia," on the S. Spadra Road, Fullerton, on October 5.

The guest speakers were Dr. Milo K. Tedstrom, who addressed us on *Recent Scientific Research,* and Mr. Ben H. Read of the Public Health League of California, who spoke on *Pending Legislation.*

Mrs. E. L. Russell was in charge of the program.

✲

Riverside County

The Woman's Auxiliary to the Riverside County Medical Society met for the first time this season on Monday evening, October 11, with the Medical Society. This was a dinner meeting, followed by a travel talk by Reverend Egly, who has just returned from a tour of Europe and the Holy Land. Following this the two organizations adjourned to separate rooms and held their regular meetings.

It was a very happy occasion, and we are looking forward to a good year.

Mrs. T. A. Card,
President.

✲

Sacramento County

The Woman's Auxiliary to the Sacramento Society for Medical Improvement held its first meeting of the fall in the home of Dr. and Mrs. Nathan Hale. Sixty-five members had the pleasure of seeing Doctor Hale's movies of their European trip, taken this year.

Mesdames Albert Dunlap, Paul Guttman, Tholow Binkley, and Edward Babcock were the assisting hostesses.

Mrs. W. J. Van Den Berg, President, announced this year's standing committees: Membership, Mrs. F. A. MacDonald; Hospitality, Mrs. E. S. Babcock; Program, Mrs. Norris Jones; Publicity, Mrs. H. R. Johnson; Public Health, Mrs. W. J. Van Den Berg; Social Welfare, Mrs. C. L. Bittner.

Special committee chairmen are: Mrs. H. F. Schluter, Telephone; Mrs. J. P. Lawson, Library and County Hospital; Mrs. Ralph Teall, Hygeia; Mrs. Norris Jones, Tuberculosis Clinic.

The Auxiliary will continue the distribution of books and magazines at the County Hospital one afternoon each week, giving three mornings of the week to the tuberculosis clinic, and assisting with all public relief drives for funds.

The Auxiliary also will assist the Medical Society in securing speakers available for the public on scientific medicine.

Mrs. H. R. Johnson,
Publicity Chairman.

✲

San Diego County

Seventy-two members attended the luncheon given by the San Diego Auxiliary to the San Diego County Medical Society. This delightful affair was held at the Hotel Del Coronado Beach and Yacht Club. Mrs. Donald Rolph, Vice-President, presided in the absence of Mrs. Elliot G. Colby, who was vacationing in the East. Mrs. Colby sent greetings by telegram.

Dr. Willard H. Newman gave a clear and concise talk on Community Chest work, which was greatly appreciated.

Much visiting, some knitting and swimming, were enjoyed after the formal meeting.

Regular meetings, on the second Tuesday of each month, will be held at the University Club, 1333 Seventh Avenue, at 12:30 p. m. The Program Committee, headed by Mrs. William C. Cooke, promises plenty of interest. All new members are especially invited to be present, as well as those already actively interested.

Mrs. Maynard C. Harding.

✲

San Francisco County

Mrs. Hans Barkan, President of the Woman's Auxiliary to the San Francisco County Medical Society, will be the official hostess at the Town Forum Hall luncheon at the Clift Hotel on Tuesday, October 19, at which Dr. Victor Heiser will be the guest of honor, following his lecture at the Curran Theater at 11 a. m.

The October meeting of the Auxiliary will be held on Tuesday the 19th at 1:30 p. m., 2180 Washington Street. The program chairman, Mrs. Lovell Langstroth, will introduce Dr. Russell V. A. Lee of Palo Alto, who will discuss the campaign for the control of venereal diseases. The talk will be the second of a series of six lectures on major health problems arranged for the Auxiliary.

Following Doctor Lee's talk, Mrs. Hans Barkan will give a report from the Public Health League, and the various chairmen will submit an account of their work accomplished the past month.

Mrs. Thomas Gibson has been recently appointed to the Board of Directors. The office of admission chairman has been taken over by Mrs. Edmund J. Morrissey, in connection with her duties as membership chairman.

A round-table discussion, under the leadership of Mrs. Julius Sherman, will be held on Monday, October 18, at 1:30 p. m., at the headquarters of the Society, 2180 Washington Street. The famous book, "An American Doctor's Odyssey," will be reviewed. The history of medicine, public health, and other allied matters will furnish the topics for these meetings, which will continue on the first and the third Monday afternoons of each month. Following the study class, tea will be served, with the president and various members of the board of directors as hostesses.

Newly printed copies of the Constitution, including corrections, are on file in the Board room for the membership to use for reference, and one copy in the hands of each officer and director. Also, subscriptions for four copies of the *National News Letter* have been ordered for the Auxiliary files.

The Auxiliary will hold its November meeting on Tuesday the 16th at 1:30 p. m., 2180 Washington Street. The guest speaker for the afternoon will be Dr. Harold K. Faber, who will talk on *Infantile Paralysis.*

Mrs. Harry R. Oliver,
Publicity Chairman.

MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings

American Medical Association, San Francisco, June 13–17, 1938. Olin West, M.D., 535 North Dearborn Street, Chicago, Secretary.

California Medical Association, Hotel Huntington, Pasadena, May 9–12, 1938. F. C. Warnshuis, M.D., 450 Sutter Street, San Francisco, Secretary.

American Society of Tropical Medicine, New Orleans, November 30 to December 3, 1937. N. Paul Hudson, M.D., Department of Bacteriology, Ohio State University, Columbus, Ohio, Secretary.

* * *

Pacific Coast Surgical Association, Los Angeles, February, 22–25, 1938. H. Glenn Bell, M.D., University of California Hospital, San Francisco, Secretary.

Southern Medical Association, New Orleans, November 30 to December 3, 1937. C. P. Loranz, M.D., Empire Building, Birmingham, Alabama, Secretary.

Western Surgical Association, Indianapolis, December 3–4, 1937. Albert H. Montgomery, M.D., 122 South Michigan Boulevard, Chicago, Secretary.

Medical Broadcasts*

Los Angeles County Medical Association

The radio broadcast program for the Los Angeles County Medical Association for the month of November is as follows:

Thursday, November 4—KECA, 10:45 a. m., The Road to Health.
Saturday, November 6—KFI, 9:15 a. m., The Road to Health; KFAC, 11:00 a. m., Your Doctor and You.
Thursday, November 11—KECA, 10:45 a. m., The Road to Health.
Saturday, November 13—KFI, 9:15 a. m., The Road to Health; KFAC, 11:00 a. m.. Your Doctor and You.
Thursday, November 18—KECA, 10:45 a. m., The Road to Health.
Saturday, November 20—KFI, 9:15 a. m., The Road to Health; KFAC, 11:00 a. m.. Your Doctor and You.
Thursday, November 25—KECA, 10:45 a. m., The Road to Health.
Saturday, November 27—KFI, 9:15 a. m., The Road to Health; KFAC, 11:00 a. m., Your Doctor and You.

Nurses Win Plea for Care.—Nurses stricken with infantile paralysis while caring for the sick at the Los Angeles General Hospital during the 1934 epidemic won an important victory recently in their long fight for health and rehabilitation.

Almost one hundred nurses still suffering from the disease or its consequences now will be able to choose their own physician and place of treatment as a result of action taken by the Board of Supervisors.

Heretofore these nurses were compelled to select one of three physicians as provided under the law governing workmen's compensation.

Under the new policy a stricken nurse may designate any doctor she chooses and any infirmary or hospital for treatment, provided both are approved by a committee of five physicians recently appointed by the Supervisors to review each case.—*Los Angeles Examiner,* September 29, 1937.

Ling Medal.—Dr. Henry H. Lissner, Chairman of the Los Angeles City School Heart Board for the past twelve years, was this year awarded the Ling Foundation Gold Medal for altruistic services to children.

Pacific Association of Railway Surgeons Honors Its Founder, Dr. Walter B. Coffey.—The annual meeting of the Pacific Association of Railway Surgeons was held this year in Guadalajara, Mexico, on October 8 and 9. The session marked the thirty-fifth annual gathering of the Association. Interesting scientific and entertainment programs were given.

The Association expressed its sincere gratitude and appreciation to Dr. Walter B. Coffey, its organizer and first president, and in appreciation of his many years of untiring interest and activity presented him with an engrossed testimonial.

Program of the Guadalajara, Mexico, meeting follows:

FRIDAY, OCTOBER 8

Auditorium, University of Guadalajara

Scientific Session, 9:30 a. m.

Presidential Address.

Treatment of Fractures of the Neck of the Femur: A Critical Study of Methods—Ignacio Chavez, M.D., Chief Surgeon, Southern Pacific of Mexico. Discussion by Alfred Gallant, M.D., Los Angeles.

Hyperthyroidism Without Goiter—Manuel Alatorre, M.D., Assistant to Chief Surgeon, Southern Pacific of Mexico.

Amebic Infections and Complications—Raphael Lamadrid, M.D., Consulting Surgeon, Southern Pacific of Mexico.

Malaria: Regional Aspect—Carlos Gutierrez Santacruz, M.D., Local Surgeon, National Railways of Mexico.

Pie de Madura—Perez Anguiano, M.D., Resident Surgeon, Southern Pacific of Mexico Hospital.

All presentations will be made in English, except "Malaria: Regional Aspect."

Report of committees.

* * *

Luncheon for the members and male guests, 1 p. m.

History of the Surgical Department, Southern Pacific General Hospital (illustrated)—C. A. Walker, M.D.

Luncheon for the ladies, 1 p. m.

"A Mexican Night" at the Country Club, 8 p. m.

Ladies, members, and guests will be welcomed by the Governor of Jalisco and the Mayor of Guadalajara.

* * *

SATURDAY, OCTOBER 9

Scientific Session, 9:15 a. m.

Diagnosis and Treatment of Perinephritic Abscess: Renal Fixation: A New Roentgenographic Diagnostic Sign (illustrated) (presented in Spanish)—Charles Pierre Mathé, M.D., San Francisco.

Observations Upon the Distribution of Nitrogen in the Coffey-Humber Extract, Supracorsin—Howard H. Beard, Ph.D., Professor of Biochemistry, Louisiana State University, New Orleans.

Recognition and Treatment of Compression Fractures of the Dorso-Lumbar Spine (with motion pictures showing a simple and effective means of reducing the compression fracture and application of cast)—William L. Weber, M.D., Chief Surgeon, Pacific Electric Lines, Los Angeles. Presented in Spanish by L. Castenaris, M.D., Los Angeles.

Nucleus Pulposus: A Cause for Low Back and Sciatic Pain (illustrated)—Howard W. Fleming, M.D., San Francisco.

The Introduction of Smallpox Vaccination Into Spanish-American Possessions through the Expedition Supported by Charles IV—Philip King Brown, M.D., San Francisco.

The Emergency Treatment of Eye Injuries (illustrated)—Warren D. Horner, M.D., San Francisco.

Report of Series of Intrapleural Pneumolysis Cases (illustrated)—Sumner Everingham, M.D., Oakland.

* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour, and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

Association of American Medical Colleges. — The forty-eighth annual meeting of the Association of American Medical Colleges was held on October 25, 26, and 27, in San Francisco, with headquarters at the Fairmont Hotel.

The program follows:

MONDAY, OCTOBER 25, 9:30 A. M.

Symposium on Examinations

E. W. MacEwen, Dean, College of Medicine, State University of Iowa.

H. S. Diehl, Dean, Division of Medical Sciences, University of Minnesota.

R. H. Dillehunt, Dean, University of Oregon Medical School.

A Superior Written Examination (Objective Type) as Applied in the Medical School: Robert P. Dobbie, Professor of Clinical Surgery, University of Buffalo School of Medicine.

Cultivation of Health in Relation to the Medical Curriculum

E. Stanley Ryerson, Secretary and Assistant Dean, University of Toronto Faculty of Medicine.

Recess

* * *

12:30 p. m.—Lunch at Stanford Hospital.

1:30-2:30 p.m.—Visiting Stanford Hospital, Stanford University School of Medicine in San Francisco, and Library.

2:30 p.m.—Bus trip to Berkeley Campus of University of California.

6:00 p. m.—Informal reception by the faculties of Stanford University School of Medicine and University of California Medical School in the Fairmont Hotel.

7:30 p. m.—Dinner (informal) in Fairmont Hotel for delegates, visitors, members of faculties of Stanford and California Universities and their wives.

* * *

TUESDAY, OCTOBER 26, 9:30 A. M.

By Members of the Faculties of Stanford University School of Medicine and the University of California Medical School

Introduction of Medical Students to the Clinical Subjects

Introductory Course in Medicine: George Barnett, Professor of Medicine, Stanford University School of Medicine.

Introductory Course in Surgery: Frederick L. Reichert, Professor of Surgery, Stanford University School of Medicine.

Teaching of Pathology: William Dock, Professor of Pathology, Stanford University School of Medicine.

Organization of the Senior Curriculum at the University of California Medical School

Salvatore P. Lucia, Assistant Professor of Medicine, University of California Medical School.

Correlation Between the Outpatient Clinic and the Senior Curriculum

Frederick S. Bruckman, Assistant Clinical Professor of Medicine, University of California Medical School.

Recess

* * *

12 noon—By bus to Family Farm, Woodside.

1:30-2:30 p. m.—Luncheon at Family Farm.

2:30 p. m.—Visit to campus of Stanford University.

6:30 p. m.—Dinner at Fairmont Hotel for delegates from member colleges, followed by the executive session (members only).

* * *

WEDNESDAY, OCTOBER 27, 9:30 A. M.

Symposium on Community Aspects of Medicine

H. R. Wahl, Dean, University of Kansas School of Medicine.

B. W. Black, Director, Alameda County Institutions.

Ralph Couch, Secretary, University of Oregon Medical School and Director of Hospitals and Clinics.

Integration of the Teaching in Psychology and Psychiatry

Calvin P. Stone, Professor of Psychology, Stanford University.

George S. Johnson, Professor of Psychiatry, Stanford University.

Teaching of Psychobiology by Means of Personality Study

Franklin G. Ebaugh, Professor of Psychiatry, and Maurice H. Rees, Dean, University of Colorado School of Medicine.

Child Welfare Institute Gets Two Research Men.— Adolescence in relation to the problem of secondary education is a subject of research study being undertaken this year at the University of California Institute of Child Welfare by two visiting specialists along this line.

Notice has been received by Dr. Harold E. Jones, Director of the Institute, that Professor Reginald Bell has received a leave of absence from Stanford University and will work at the Institute under a fellowship from the General Education Board. Doctor Bell's research will be undertaken in coöperation with Dr. Jones and Dr. Daniel E. Prescott, research associate, who has been granted leave of absence from Rutgers University for the year.

Lower California Epidemics Blamed on Invaders.— One of the chief indictments against the white race, the charge that its advent into new countries has brought only death and disaster in many instances, is proved in a study of the extent of disease and epidemics among the Indians of Lower California between 1697 and 1773, just completed by Professor S. F. Cook, associate professor in the department of physiology, University of California; and issued as a regular publication by the University Press.

Professor Cook shows in striking fashion how the native Indian population in Lower California fell from an estimated 41,500 to approximately 4,000 in the seventy-five years covered in the study. "Evidence is presented that during this period at least 20,000 persons must have perished as a result of epidemic diseases and that further decline was induced by the ravages of syphilis," Professor Cook stated. "We may assume that in 1697 the population was stable and the birth and death rates were equal, that is, over any considerable period of time. This assumption seems warranted, since the Indians had been in the country for generations and had arrived at a fine equilibrium with respect to their primary limiting factor, that is, food supply. The conclusion seems justified that between 25 and 40 per cent of the population decline in Lower California may be directly attributable to epidemic disease."

Expeditions reaching as far back as 1683 make no mention of diseases among the Indians. But, in the years following the Atondo expedition, the natives became afflicted with "pestes," which developed into wave after wave of violent epidemics. Efforts of the missionary Jesuits to keep out disease, at first effective, were defeated by the successive influxes of soldiers and adventurers.

Malaria Control in California Must Be Pushed.— Malaria, which twenty-five years ago claimed an annual death rate of 64.3 per 100,000 population in some sections of California, has been conquered to a very great extent, but much work remains before it can be completely controlled. This is stated in a paper on malaria and mosquito control, prepared by Professor W. B. Herms, chief entomologist in the Experiment Station of the University of California College of Agriculture.

A recent flare-up of the disease, due presumably to depression conditions, was analyzed by Professor Herms, who lays a portion of the present malarial incidence on human carelessness. However, he states, the malarial incidence in the former principal areas of infection in the State, remains at an encouragingly low figure, proving the efficacy of the control measures undertaken by the State and University health authorities.

The campaign against the anopheline mosquito, chief vector of the disease in California, has brought about notable results, principally a decided decrease in the death rate, but recent surveys show that the disease is being given new encouragement, Professor Herms said. He described a visit to a State migratory labor camp in August of this year while eighty-five men were contained therein. Seven cases of malaria have been diagnosed by the camp doctor since the first of July, and it was possible for the visitors to capture five hundred mosquito carriers within twenty minutes in the mess hall.

The improper care of irrigation ditches and other water sources, and the improper location of labor camps, are two important factors in malaria incidence. The California malaria mosquito breeds almost exclusively in water that is almost continually being freshened, such as seepage pools resulting from leaking irrigation canals or ditches.

Los Angeles School Health Section.—The Los Angeles School Health Section has been chosen by Karl F. Meyer, M.D., Director of Curricula in Public Health, the University of California at Berkeley, as a training school for physicians who are taking the course in Public Health under the sponsorship of the Hooper Foundation. Since school health is an important part of public health administration and practice, it was felt that this training was essential in rounding out the education of public health officers. The Los Angeles department was chosen because it was felt to be the outstanding leader in this field.

This year one health officer trainee was given an intensive postgraduate course, lasting one month, in which the Los Angeles school health activities were surveyed and studied.

Last December twelve postgraduate students were given three days of field work, in which the activities of the Health Section were reviewed.

National Academy to Award Prize to Dr. E. O. Lawrence.—Dr. E. O. Lawrence, inventor of the cyclotron and leader in the field of radiation, professor of physics at the University of California on the Berkeley campus, will be awarded the Comstock prize by the National Academy of Sciences at its fall meetings in Rochester, New York. This prize, perhaps the most important given by the Academy, is awarded every five years, and is given this year to Doctor Lawrence for "the most important discovery or investigation in electricity or magnetism of radiant energy."

At the University of California, Doctor Lawrence succeeded in developing the neutron ray, by means of his cyclotron, which has been copied in many countries of the world. He has been able to make certain salts radio-active, and to make a low-grade synthetic radium. In view of the cost of radium, this discovery is important; further, it can be used with less danger to patients than can radium itself. He has been able to transmute metals by means of the neutron ray.

Most promising of all the applications of the work is on cancer, the neutron ray being much more lethal to cancerous tissue and less harmful to healthy tissue than the x-ray. This work is being furthered at the University's Medical School.

Gifts to the University have made it possible to construct a new radiation laboratory and to equip it with a cyclotron four times the size of the old one. Further developments are expected when Doctor Lawrence and his staff resume their research with the new apparatus.

Infantile Paralysis Spray. — The first report to the Ontario Department of Health on the test of the Peet nasal spray as a preventive of infantile paralysis administered free to nearly one thousand children in this area five weeks ago was made recently by Dr. J. Hagemeier of Preston Springs, Ontario, Canada.

Of a population of about 1200 children, 993 were sprayed; the remaining approximately 200 were not sprayed. Of the 993 treated, only one child (one-tenth of one per cent) contracted the disease; of the remaining approximately 200, two (one per cent) contracted the disease. The one case in which the disease was contracted after spraying presented two important complicating factors. Subsequent examination disclosed a septal deflection to the right, which practically occluded the respiratory passage on that side, making it impossible to obtain proper contact of the medicine with the desired area.

Since the disease developed ten days after spraying, and since the period of incubation is generally accepted as running from seven to eighteen days, it is also possible that the disease may have been contracted before the treatment was given.

An original method of treating small children was developed. The treatment was administered with a medicine dropper, the child being held upside down to permit the solution to reach the upper nasal passage by gravity.

The spray tested was a solution of one per cent zinc sulphate in 0.5 sodium chlorid with one per cent nupercain, developed by Dr. Max Minor Peet of the University of Michigan. Public treatments started on August 24.

Editor Advises Medical, Health Groups to Confine Work to Noncommercial Sphere.—Stating that "people who buy tickets to the movies pay for entertainment, not instruction," Myron Weiss, associate editor of *Time* magazine, speaking at the annual convention of the American Public Health Association, which was held in New York, stressed that those agencies interested in promoting public health education would serve their interests best by confining their efforts to nontheatrical, noncommercial movies. Mr. Weiss called attention to the fact that in the noncommercial field, in spite of numerous one-reel educational films now available to special groups, the surface was as yet unscratched from the standpoint of really valuable instructional achievement.

While the success of many big features, such as "Pasteur," "Green Light," and "Arrowsmith," might indicate that medical films are strong at the box-office, according to Mr. Weiss these "indications are wrong." Each of these pictures, he intimated, had a strong public appeal aside from the medical angle, in some cases a big-name actor, in others a "natural" for a plot.

Conversely, medical and public health agencies were advised that the poor commercial attraction of health films was "by no means an indication of the lack of interest in health matters." Thus the showing of health films is "best restricted to audiences assembled for the purpose of being instructed."

Citing what has already been done in the nontheatrical field, Weiss concluded his talk with conjectures as to the future, and called to the attention of the public health delegates the efforts of the recently formed Advisory Committee on Motion Pictures chosen by the Hays office, and the work of Professors Claire E. Turner and Ira V. Hiscock on a series of health shorts at the Warner Brothers Brooklyn Studio—"an attempt," Mr. Weiss stated, "to make a more interesting instructional reel, tempered by historical background and drama which was to be brought in with professional finesse."

Tests Give Iodin First Place as Germ Destroyer.—Exhaustive tests made by the Department of Bacteriology of the University of California have determined that iodin is the most efficient of nine leading germicides in the elimination of bacteria of both the pus and the typhus types. Not only was the primacy of iodin established in the tests, but they also developed an improved method for the evaluation of all germicides intended for human application.

The experiments, which were conducted by Dr. A. J. Salle, assistant professor of bacteriology, and his associates, covered an unusually wide range in the determination of the relative values of the ten germicides. The evaluation of the pus germicides in their order was as follows:

Iodin, iodin trichlorid, mercuric chlorid, Hexylresorcinol, Metaphen, phenol, potassium mercuric iodid, Merthiolate, and Mercurochrome. In the typhus type of infections the evaluation showed the following order.

Iodin, potassium mercuric iodid, mercuric chlorid, iodin trichlorid, Metaphen, Hexylresorcinol, phenol, Merthiolate, and Mercurochrome.

While intended primarily for the members of the medical profession, to determine what germicides should be used in operations, the experiments have wide popular implications, due to the general use of a number of the compounds for superficial cuts and wounds.

All of the germicides were tested for their ability to kill Staphylococcus aureus (pus organisms), and Eberthella typhosa (typhus organisms), as well as for their effect on the growth of living embryonic tissue. Of the compounds examined, iodin showed the lowest toxicity for healthy tissue, and Mercurochrome the highest. Iodin (in aqueous solution), appears to be the germicide "par excellence," because it combines this low tissue toxicity with high bactericidal efficiency against both of the toxic organism types used in the experiments. Of the newer organic preparations, Hexlresorcinol tested better than any of the others against both Staphylococcus aureus and Eberthella typhosa. The results left Hexylresorcinol an extremely valuable germicide for general use.

Iodin, a chemical element belonging to the halogen group, was discovered in 1812 by B. Courtois while investigating the product obtained from the mother liquors prepared by lixiviating kelp or burned seaweed. A minute proportion of iodin in the diet appears to be essential for health.

California Department of Industrial Relations.—Director T. A. Reardon, in his report to Governor Merriam's Council, stated:

"In the Industrial Accident Commission the number of compensation cases has materially increased without any additional personnel. Coincident with this thought, the following report from the Statistical Department is worthy of serious consideration: 'There was an increase in the number of industrial deaths of approximately 18 per cent for the first six months of 1937 in comparison with the first six months of 1936. Maintaining the same rate of increase for all reported injuries, it is estimated that there will be an increase of more than 25,000 injuries for the first half of 1937 over a similar period in 1936, making a total of more than 165,000 for the first six months of 1937.' In the Safety Department the elimination of injurious fluids in cleaning and dyeing establishments, as well as the organization of the Division of Industrial Hygiene to make a study of industrial diseases, is very important. Of unusual interest is the report of the Legal Department, which shows how railroad employees injured in intra-state commerce, under a decision of the Supreme Court, now come under the jurisdiction of the Industrial Accident Commission." . . .

California Health Officers Meet in San Jose.—The health officers of California, organized as the Health Officers' Section of the League of California Municipalities, held their annual meeting in San Jose, September 13 to 15. Approximately 150 public health officials attended this conference.

Dr. A. M. Lesem, Director of the San Diego Department of Public Health and President of the Health Officers' Section, presided over the conference. An interesting and valuable program was presented; many representative health officers having been assigned to topics that are of current interest and necessity in the maintenance of public health. Many of the papers presented at the meeting will be printed in the Weekly Bulletin.

The next meeting of this section will be held in Santa Barbara in the autumn of 1938 in conjunction with the annual convention of the League of California Municipalities.

The following officers were elected to serve during the year 1937–1938: Dr. E. F. Reamer of Modesto, Health Officer of Stanislaus County, president; Dr. George Parrish, Los Angeles City Health Officer, first vice-president; Dr. I. O. Church of Oakland, Health Officer of Alameda County, second vice-president; Dr. W. M. Dickie of Sacramento, State Director of Public Health, secretary-treasurer.

State of New York Eradicates Bovine Tuberculosis. On October 1, 1937, the State of New York was officially designated by the United States Department of Agriculture as a modified accredited area, indicating its practical freedom from tuberculosis of cattle. New York thus becomes the forty-sixth state in which all counties are in the modified accredited status, indicating that bovine tuberculosis has been reduced to less than one-half of one per cent as shown by the tuberculin test.

In continental United States there are now no counties east of South Dakota that have not been designated as modified accredited areas, and only one other state, California, in which there are any nonaccredited counties.

Tuberculosis among cattle existed to a very great extent in many of the counties in New York when the work of eradicating it was undertaken coöperatively by the state and federal authorities in 1919. Since that time there has been a great increase in the volume of work conducted each year, and during the last three years it was possible to increase the volume of the work because of the additional federal funds made available for the purpose. It was necessary, however, for the State of New York to expend a large sum to accomplish this achievement.

The splendid coöperation received from the herd owners, officials, and others interested in the project, is responsible to a large degree for the success of the eradication work in New York State. Arrangements have been made to conduct the required retesting of cattle which will be necessary to remove any existing infection and protect the tuberculosis-free herds in the state.

Pacific Coast Surgical Association.—The annual meeting of the Pacific Coast Surgical Association will be held in Los Angeles from February 22 to 25, inclusive, 1938. For further information, write to H. Glenn Bell, M.D., Secretary-Treasurer, University of California Hospital, Third and Parnassus Avenues, San Francisco.

Paralysis Research. — An Associated Press dispatch from Washington on September 23 stated:

Public health service officials welcomed President Roosevelt's announcement of the impending organization of an infantile paralysis foundation.

From its research, they said, may come the all-important explanation of what causes the disease.

"Many, many laboratories still are fumbling for the cause," commented Dr. Robert Olesen, an assistant surgeon-general.

"We have made headway in treatment, but as for cause and prevention we still have to talk in glittering generalities."

Mr. Roosevelt drew on his own experiences as a victim of the disease in describing the need for launching an adequately financed campaign through which one national body would "lead, direct and unify the fight on every phase of this sickness."

"Those who today are fortunate in being in full possession of their muscular power," he said, "naturally do not understand what it means to a human being paralyzed by this disease to have that powerlessness lifted even to a small degree.

"It means the difference between a human being dependent on others and an individual who can be wholly independent."

The disease, also called poliomyelitis, wreaks its greatest ravages on children. The Children's Bureau reported last year that three of every ten crippled children were the victims of infantile paralysis.

The new foundation, as envisioned by the President, would carry on investigation into the cause, prevention, treatment and "every medical possibility of enabling those so afflicted to become economically independent."

State Compensation Insurance Fund for Industrial Injuries.—Clark B. Day, Manager of the State Compensation Insurance Fund, submits the following item:

More than $3,000,000 in cash dividends are to be distributed by the State Compensation Insurance Fund. According to Manager C. B. Day, these dividends will go to employers who were insured in 1936. As in the past, payments are to be made nine months after policy expirations. Distribution will start October 1, with checks being mailed daily in order of policy expiration.

These payments are to be apportioned in accordance with individual accident experience. This will give an added force to safety work and accident prevention. It will also serve to reward employers who helped produce the surplus earnings out of which dividends are to be paid.

The State Compensation Insurance Fund has earned and paid dividends every year since its inception twenty-three years ago. This has been accomplished despite periods of economic depression. To date, more than $26,500,000 in cash dividends have been returned to California employers.

As a result of the coöperation of its policyholders, the State Compensation Insurance Fund is able to announce not only the largest total dividend ever to be returned, but also the largest average dividend in its history. This indicates the strong financial position of the Fund and again demonstrates the success with which it has always served employers. Created by the people of the State of California to provide compensation insurance at cost, it has operated without State aid or subsidy in competition with other carriers. The State Compensation Insurance Fund writes approximately one-third of all compensation insurance premiums in California. This large volume of business makes it possible to provide complete, specialized service for all employers at minimum cost. Paying taxes on its premiums, like any other insurance carrier, the State Compensation Insurance Fund is one of the State's largest taxpayers.

Postgraduate Symposium on Heart Disease.—The Heart Committee of the San Francisco County Medical Society will hold its eighth annual Postgraduate Symposium on Heart Disease at the University of California, Stanford University, and San Francisco Hospitals, November 17-18, 1937. The course will cover the various aspects of heart disease, including diagnosis, prognosis, and treatment. Recent advances in cardiology will be reviewed and evaluated. Clinics with practical demonstrations will be held, and newer diagnostic procedures and methods of treatment will be presented and evaluated.

The registration fee is $2, and will entitle the registrant to membership in the California Heart Association for the year 1938. Those who are planning to attend should notify the secretary as soon as possible. Checks should be made payable to the San Francisco Heart Committee and mailed to the secretary, Elbridge J. Best, M.D., 604 Mission Street, Room 802, San Francisco. The membership card, which will also serve as registration card, will then be mailed, together with a copy of the program, as soon as it is completed.

Ninth Gorgas Memorial Essay Contest Announced.—Announcement of the ninth Gorgas Memorial Essay Contest has been made by Admiral Cary T. Grayson, Chairman of the Board of Directors of the Gorgas Memorial Institute, from the office of the Institute at 1835 Eye Street, Northwest, Washington, D. C. The essay contests have become an annual feature of the program of personal health education carried on by the Institute. High schools throughout the country are invited to enroll. Participation is restricted to students in the third and fourth years of high school.

For the best essay written in each school, a bronze Gorgas medal is awarded, and the student so honored represents his school in the State competition. A prize of $10 in cash is given for the best essay in each state. The judges are state officials—the state health office, state superintendent of education, and the secretary of state. The state prize-winning essays are then judged for the national awards. The first prize is $500 in cash and a travel allowance of $200 for a trip to Washington to receive the prize. The second prize is $150 in cash; and third prize, $50.

The subject for this year: The Achievements of William Crawford Gorgas and Their Relation to Our Health.

The dates of the contest: October 21, 1937 to January 21, 1938.

Full information concerning the contest may be found on school bulletin boards or can be obtained from the Gorgas Memorial Institute, Washington, D. C.

American College of Surgeons.—Chicago, being one of the great medical centers of the world, was chosen by the American College of Surgeons as the locale for its twenty-seventh annual Clinical Congress, which was held on October 25 to 29, with headquarters at the Stevens Hotel.

The annual oration on surgery was delivered by J. P. Lockhart-Mummery, M.B., B.Ch., Fellow of the Royal College of Surgeons, London, England. His subject was "The Surgeon as a Biologist." The retiring president, Dr. Eugene H. Pool of New York spoke on "The American College of Surgeons in the Training of the Surgeon."

The new officers of the College, who were elected at the 1936 Congress held in Philadelphia, are: Dr. Frederic A. Besley of Waukegan, president; Dr. Frank W. Lynch of San Francisco, first vice-president; and Dr. Austin B. Schinbein of Vancouver, British Columbia, second vice-president. Dr. George Crile of Cleveland is chairman of the Board of Regents and of the Executive Committee of the College. Members of the Advisory Council are: Drs. John M. T. Finney of Baltimore and Charles H. and William J. Mayo of Rochester, Minnesota.

Fellowship in the College was conferred upon several hundred initiates, who have met the qualification requirements.

The twentieth annual hospital standardization conference of the College was held during the first four days of the Clinical Congress, and a list of approximately 2,600 hospitals in the United States and Canada, which are on the 1937 approved list, will be made public. This list is revised each year through continual surveys by the staff of the College.

The Golden Gate International Exposition.—A committee of leading western medical men has been formed to work out the details of the health exhibit for the 1939 Golden Gate International Exposition. The major emphasis will be placed on the prevention of disease rather than on its treatment. In keeping with the "Pageant of the Pacific" theme of the Exposition, the contributions of Pacific nations toward the health of humanity will be dramatized. Proper nutrition, practical knowledge of vitamins, sanitation, vaccination, and other matters of public health will be explained for the layman.

The plans have the coöperation of several American universities, notably the University of California, Stanford University, the University of Southern California, California Institute of Technology, Harvard University, University of Oregon, and the University of Washington. (See also CALIFORNIA AND WESTERN MEDICINE, October, 1937, page 268.)

Southern California Medical Association.—The ninety-seventh semi-annual meeting of the Southern California Medical Association was held on October 29 and 30, in the headquarters of the Los Angeles County Medical Association, 1925 Wilshire Boulevard, Los Angeles.

The program follows:

FRIDAY AFTERNOON SESSION, 2 P. M.

The Normal Aged Person: An Excursion in Geriatrics—L. Dale Huffman, M.D.

Discussion by Verne C. Mason, M.D., Los Angeles; George H. Houck, M.D., Los Angeles.

The Treatment of Acute Urinary Infections—Harry F. Dietrich, M.D., Los Angeles.

Discussion by Ezra S. Fish, M.D., Beverly Hills, and Albert J. Scholl, M.D., Los Angeles.

The Natural History of Nodular Lymphocytoma—John W. Budd, M.D., Los Angeles.

Discussion by Alvin G. Foord, M.D., Pasadena, and John M. Askey, M.D., Los Angeles.

Some Medical Problems Encountered in the Eye Hospital in Madras, India—S. Rodman Irvine, M.D., Los Angeles. (Motion pictures.)

Discussion by George P. Landegger, M.D., Los Angeles; Clifford B. Walker, M.D., Los Angeles.

FRIDAY EVENING SESSION, 8 P. M.

A Plea for a More Widespread Recognition of Hypothyroidism and Its Manifold Manifestations—Hans Lisser, M.D., Clinical Professor of Medicine and Chief of the Ductless Gland and Metabolic Clinic, University of California, San Francisco. (Illustrated with lantern slides.)

Organized Ignorance—Frederick P. Woellner, Ph.D., Professor of Education, University of California at Los Angeles.

SATURDAY MORNING SESSION, 10 A. M.

The Use of the Adrenal Cortex in the Treatment of the Common Cold—Francis M. Pottenger, M.D., Monrovia.

Discussion by Leland G. Hunnicutt, M.D., Pasadena, and Clifford A. Wright, M. D., Los Angeles.

The Present Status of Surgery of the Thyroid Gland—G. Arnold Stevens, M.D., Los Angeles.

Discussion by Charles T. Sturgeon, M.D., Los Angeles; Edwin A. Schneider, M.D., Los Angeles.

Management of Prolonged Labors—Donald G. Tollefson, M.D., Los Angeles.

Discussion by Emil J. Krahulik, M.D., Los Angeles; E. M. Lazard, M.D., Los Angeles.

The Differential Diagnosis of Rectal Tumors—William H. Daniel, M.D., Los Angeles.

Discussion by William H. Kiger, M.D., Los Angeles, and Paul C. Blaisdell, M.D., Pasadena.

SATURDAY AFTERNOON SESSION, 2 P. M.

Traumatic Rarifying Osteitis—Frank J. Breslin, M.D., and Kenneth S. Davis, M. D., Los Angeles.

Discussion by Francis M. McKeever, M.D., Los Angeles; Hugh T. Jones, M.D., Los Angeles.

Carotid Sinus Denervation for Syncope: Report of an Unusual Case—Neville T. Ussher, M.D., Arthur H. Elliott, M.D., and Caleb Stone, M.D., Santa Barbara.

Discussion by Clarence J. Berne, M.D., Los Angeles; Morris H. Nathanson, M.D., Los Angeles.

Common Skin Diseases—L. F. X. Wilhelm, M.D., Los Angeles. (With slides.)

Discussion by William H. Goeckerman, M.D., Los Angeles; Kendal Frost, M.D., Los Angeles.

Food Poisoning Due to Staphylococcus—Fred B. Clarke, M.D., Long Beach.

Discussion by John F. Kessel, M.D., Los Angeles; Frederick A. Speik, M.D., Los Angeles.

Typhoid Fever in California.—Accomplishments in the control of typhoid fever are outstanding. When it is considered that most public water supplies in California come from surface streams, the necessity for safeguarding such water supplies against sewage contamination becomes obvious. The State Board of Public Health issues permits not only for the disposal of public sewage, but for the provision of public water supplies as well. It has taken an active part in stimulating local communities to disinfect public water supplies so as to remove all possibility of infection from typhoid fever and dysentery. As a result, waterborne typhoid is practically nonexistent in California, and not more than two individuals per 100,000 population now die annually of typhoid fever. In 1906, thirty-two Californians out of every 100,000 population died of this disease. If the 1906 death rate prevailed today, there would be 2,000 deaths from this disease instead of 80, which occurred in 1935. The credit for this remarkable record is due mainly to the provision of pure water supplies and also to the improvement in general sanitary conditions as well as the immunization of individuals against the disease.

California—Typhoid Mortality Rates Per 100,000 Population, 1920-1935

Year	Rate	Year	Rate
1920	32.8	1928	13.0
1921	25.4	1929	11.1
1922	24.4	1930	13.0
1923	21.1	1931	12.2
1924	40.3	1932	8.9
1925	18.4	1933	12.1
1926	21.1	1934	10.2
1927	13.5	1935	8.5

California Section of the American Sanatorium Association.—The annual meeting of the California Section of the American Sanatorium Association was held on November 12 at the Orange County Hospital, Orange. The 1937 officers and committees are: Stephen A. Parowski, M.D., president; Charles L. Ianne, M.D., vice-president; William A. Winn, M.D., secretary-treasurer; and as hosts, E. W. Hayes, M.D., and Harry E. Zaiser, M.D.

The program follows:

MORNING SESSION

9:30 a. m.—Tour and Inspection of the Sanatorium and Grounds, and Business Session.

AFTERNOON SESSION, 2 P. M.

Topics limited to ten minutes; discussions to five minutes.

A program for the domiciliary care of indigent patients who have reached maximum improvement in the Tuberculosis Sanatorium. An outline of the Weimar Plan as a solution of the above problem—Mildred Thoren, M.D.

Tuberculosis Sanatorium statistics for the fiscal year 1937–1938: salaries paid doctors, nurses, attendants, etc. Cost per capita; cost per meal; service charges for pay patients in the County Institution—Elliott P. Smart, M.D.

Sputum conversion. Definition and test criteria from the standpoint of treatment, Public Health, and discharge from the Sanatorium—Edwin S. Bennett, M.D.

Thoracic surgery as performed in the Tuberculosis Sanatorium versus the County General Hospital—F. Paul O'Hara, M.D.; Cabot Brown, M.D.

Follow-up program of cases discharged with a favorable result from the Tuberculosis Sanatorium—F. M. Pottenger, M.D.

Outline of program that attempts to keep the arrested case arrested as practiced in Fresno County—Everett Morris, M.D.

Choosing a site for the new Tuberculosis Sanatorium; urban versus rural location; a division of the General Hospital or individual entity—Everett Morris, M.D.; Chesley Bush, M.D.

Is the examination of transients for tuberculosis, as a health measure, as necessary as the examination for syphilis? Should the State Bureau of Tuberculosis supply funds to carry on this work?—Charles L. Ianne, M.D.

The present place and future development of the Preventorium. Statistical survey obtained by questionnaire—W. A. Hodges, M.D.; H. G. Trimble, M.D.

X-ray symposium.

News Clippings.—Some news clippings dealing with matters related to public health activities or medical practice follow:

Hospital Wage Plea Dealt Blow

Budget Bureau Urges Denial of Union's Petition for Increase

Employees of the General Hospital are not underpaid, but receive higher compensation than is generally paid for the same work in private industry, according to a report submitted yesterday by the County Bureau of Budget and Research to the Board of Supervisors, urging denial of a petition from the Central Labor Union for a wage increase.

Bureau Findings

Following a survey of the situation, the Bureau finds that not only are the hospital employees better paid than others in similar work in private institutions and industry, but they enjoy benefits not accorded in outside industries.

Should the increase as asked by the union be granted, it would affect 2,780 employees with a total increase in pay amounting to $890,270 per annum.

Scope of Survey

During the course of the investigation the Bureau held an open hearing on July 21, at which time arguments for the increased pay were presented by the union representatives. Subsequent investigations disclosed, after contact with 123 private businesses made to compare wages, that the hospital workers are not underpaid, the report states.

The report concludes with the recommendation that the general salary increase be denied, stating that such an increase could not be justified.—*Los Angeles Times*, October 23, 1937.

Chicago Gets Cancer Clinic

A new cancer institute, bringing together several internationally known scientists, was announced in Chicago on October 24 on the eve of the twenty-seventh annual clinical congress of the American College of Surgeons.

Dr. Max Cutler, Director of the Tumor Clinic of Michael Reese Hospital, said the new organization, incorporated not for profit as the Chicago Tumor Institute, would begin functioning about March 1.

The institute will be the sixth in the United States devoted exclusively to cancer treatment and research.

Dan E. Williams of Sonora Resigns From California Senate

The Governor's office announced on October 22 the receipt of the resignation of Senator Dan E. Williams, Republican of Sonora.

Senator Williams gave no reason for his resignation, but it was understood he has established a residence in Idaho.

In 1931 he was elected to the Senate and served during the 1931 and 1932 sessions, being reëlected in 1935 to serve in that session and the one of 1937.—*Los Angeles Herald-Express.*

Fatal Drug Blamed for Thirty-Nine Deaths

Medical Association Helping United States Food Agency Search for Sulfanilamide Compound

Situation Without Parallel in American History, Declares Dr. Morris Fishbein

Seven hundred bottles of "death elixir," which has killed at least thirty-nine Americans, are still in circulation, the American Medical Association estimated tonight.

The estimate shattered hopes that the danger would pass this week, and indicated that more deaths will be added to the toll taken by the lethal preparation, which was inadvertently released as a remedial medicine.

The situation has become unparalleled in American history, Dr. Morris Fishbein, editor of the American Medical Journal, stated today as he added three more deaths to the list definitely caused by "elixir of sulfanilamide."

Most of Drug Located

The United States Food and Drug Administration and the Medical Association are engaged in an intensive search for the remaining bottles of the elixir. Most of the 375 cases of the supposed medicine, which were shipped out before its death-dealing qualities became known, have been recovered.

In isolated areas, however, the estimated 700 "bottles of death," mostly pint bottles, still remain on drug shelves and in private medicine cabinets, according to the Association's estimate today.

The latest deaths definitely attributed to the elixir were in Texas. At High Bank, Texas, a boy first went blind, then

died. At Madisonville, Texas, a child died after being given the elixir for a throat infection. Another boy was a victim in Texas City, Texas.

The condition of six patients to whom the elixir was innocently prescribed was being anxiously watched today in Covington County, Mississippi, where six have already died as a result of it.—*Los Angeles Examiner.* (International News Service, Chicago, October 24.)

* * *

Medical Schools Open San Francisco Convention Today
(October 25, 1937)

The Association of American Medical Colleges, made up of seventy-six medical schools in the United States and five from Canada, will begin a three-day conference at 9:30 a. m. today at the Fairmont Hotel.

Eastern delegates will arrive at 8:30 a. m. on a special train from Chicago. After registration at 9 a. m. delegates will hear a symposium on examinations and a paper on "Cultivation of Health in Relation to the Medical Curriculum" delivered by E. Stanley Ryerson, President of the Association and Assistant Dean of the University of Toronto Faculty of Medicine.

Lunch At Stanford

The 150 visitors will have lunch at Stanford Hospital and then see the campus of the University of California. At 7:30 p. m. they will be honored with a reception dinner at the Fairmont Hotel. Hosts will be members of the faculties of Stanford and California Universities and their wives.

Talks by Dr. Ray Lyman Wilbur, President of Stanford University; E. Stanley Ryerson; and Dr. Monroe Deutsch, Vice-President and Provost of the University of California, will be included on the program.

Leaders in Symposium

Outstanding men who will lead this morning's symposium on examinations include Dr. E. W. MacEwen, Dean of the College of Medicine, University of Iowa; Dr. H. S. Diehl, Dean of the Division of Medical Sciences, University of Minnesota; Dr. R. H. Dillehunt, Dean of the University of Oregon Medical School, and Dr. Robert P. Dobbie, Professor of Clinical Surgery, University of Buffalo.—*San Francisco Examiner,* October 25, 1937.

* * *

Rabies Death Verified by Autopsy

Funeral services were held for Dr. Samuel Crouch, 58-year-old veterinary surgeon, who recently died at the Los Angeles County General Hospital apparently of rabies.

As the autopsy was being completed at General Hospital this afternoon, physicians who attended the victim reiterated their statements that they believe death was caused from a dog bite Doctor Crouch received last June.

While he took the Pasteur treatment at the time, and apparently avoided the dread rabies, symptoms of the disease developed last week. The dog which bit Doctor Crouch was a black Scotty belonging to Mr. and Mrs. H. L. Harford, Altadena.

* * *

Eliminating Stray Dogs Held Essential

Elimination of all stray dogs in the city and the confinement of all licensed dogs to their premises as a means of stamping out rabies was urged today by Dr. Wilton Lee Halverson, following the death of Dr. Samuel Crouch, Altadena veterinarian, who was the third victim of the dread disease this year in California.

"Lives of three useful and respected citizens have been sacrificed because of a combination of unwillingness to stamp out a disease which involves the restriction of dogs," Doctor Halverson said. "The irony of the situation is attested to by the fact that during the year hundreds of valuable dogs also have died from this disease.

"The greatest barrier in stamping out rabies in California is the warped conception that the restriction of the freedom of our dogs will work a hardship on them. If a rigid quarantine were placed on the entire Southern California area, rabies could be effectively stamped out in six months' time. Instead, we have dallied along with half-hearted measures for at least six months, and now the weekly incidence of rabies is just as high as it was when the program commenced.

"There is only one answer to the control of rabies, and that is, the absolute elimination of all stray dogs and the confinement of properly owned dogs to premises except when on leash.

"Pasadena's ordinance requires this, and the Pasadena Humane Society is making every effort to enforce the ordinance to the letter. The citizens of the community can render a valuable service by assisting the Society in the enforcement of the ordinance. No organization, without the adoption of 'shotgun' tactics can hope to carry out this work unaided.

"In the case of dog bite, the wound should be immediately cauterized with nitric acid. Iodin or other antiseptics are valueless and should not be depended on. If the bite is about the face, Pasteur treatment should be started immediately. If the bite is on the extremities, Pasteur treatment need not be started until it is proved that the dog has rabies. If the dog is not found, safety dictates the institution of Pasteur treatment in addition to cauterization. It should be emphasized that neither cauterization nor the Pasteur treatment are effective in 100 per cent of the cases, but if the wound is thoroughly cauterized immediately, and if the Pasteur treatment is properly given, the chances of development of the disease are exceedingly small."—*Pasadena Star News,* October 19, 1937.

* * *

Radium Substitute Announced
California University Physicist Makes It From Table Salt

Announcement of a discovery of a substitute for radium, which can be produced synthetically in large quantities, electrified the 350 delegates to the National Academy of Sciences at their opening meeting in Rochester, New York, on October 25.

Dr. Ernest O. Lawrence, University of California physicist, announced that the substitute is common table salt, made radio-active by an atom-smashing machine which he invented. It is said to be capable of performing all that the vastly more expensive radium does and can be produced in quantities large enough to supplant radium in the treatment of cancer.—*Los Angeles Examiner,* October 26.

LETTERS

Concerning article on "Valley Fever," published in September issue of "California and Western Medicine," page 151.

Los Angeles, September 23, 1397.

To the Editor:—In the September, 1937, issue of CALIFORNIA AND WESTERN MEDICINE there appeared an article titled "Valley Fever," etc. (p. 151), in which the author speaks favorably of the cutaneous test in coccidioides as a diagnostic procedure. In a paragraph purporting to represent a partial reproduction of a report by the Kern County Health Officer, reference is again made to the diagnostic procedure "with the Kessel coccidioidin preparation."

Far be it from my purpose to minimize the value or the importance of the work of Professor Kessel in the field of mycology. His scientific contributions to the literature speak for themselves. Furthermore, his direct interest in the problem of coccidioides has been of material help to this writer personally on various occasions. It is precisely because of my respect for the work of Doctor Kessel, and due to a desire to see facts recorded accurately, that I am taking the liberty of calling the attention of the writer of the above-captioned article to the fact that the diagnostic coccidioidin, the method of its preparation, its administration, the interpretation of the cutaneous reaction, etc., were all published by me in the *Archives of Dermatology and Syphilology,* October, 1928 (Vol. 18, pp. 562-567), and in my book, "Fungous Diseases" (p. 246).

Respectfully yours,

H. P. JACOBSON, M.D.

Concerning the American Red Cross.

To the Association Secretary:—This letter conveys two messages. First, it brings you a copy (separate cover) of our report on Red Cross work in the Ohio-Mississippi flood of early spring 1937, and conveys to you and through you to your membership our sincere thanks for your and their part in our successful flood fund campaign. Additional copies of the report will be sent if you desire.

Second, this is the beginning of our third year of objective participation with other organizations in an intensive campaign for the prevention of accidents in the home and on the farm. Our program has two parts:

1. Annual home and farm self-inspection campaign—carried on with the coöperation of the schools and giving every school child in the United States opportunity to take home a copy of the attached "Check List."

2. Continuing year-round educational program—carried on through coöperating organizations and ready-made groups by means of "Group Discussion" on Accident Prevention. You will see what I mean if you will look over the copy of ARC 1027, "Group Discussion Material on Accident Prevention," which I am sending separately.

Our Chapter committees on Home and Farm Accident Prevention are for the most part composed of representatives of local coöperating organizations. Those representatives, as well as our Chapter people, would receive inspiration from a message from you either by letter to your local units or through your house organ, if you have such. I should appreciate it if you will do that, advising me of any action you take and sending us copy of your message to your local units with the privilege of using it ourselves.

Sincerely yours,
A. L. SCHAFER, *Manager.*

Concerning prize essay.

To the Editor:—The membership of the Board of Directors and the Advisory Committee of the Mississippi Valley Medical Society will greatly appreciate your publishing the enclosed notice, pertaining to a cash prize and a gold medal award, in the next available issue of your publication. We are eager to give this matter as much publicity as possible, and thank you sincerely for any coöperation you can render.

Cordially,
MISSISSIPPI VALLEY MEDICAL SOCIETY.
Harold Swanberg, M.D., *Secretary.*

* * *

MISSISSIPPI VALLEY MEDICAL SOCIETY AWARD

The Mississippi Valley Medical Society offers a cash prize of $100, a gold medal and a certificate of award for the best unpublished essay on a subject of interest and practical value to the general practitioner of medicine. Entrants must be ethical licensed physicians, residents of the United States, and graduates of approved medical schools. The winner will be invited to present his contribution before the next annual meeting of the Mississippi Valley Medical Society (September 28, 29, 30, 1938), the Society reserving the exclusive right to first publish the essay in its official publication—the *Radiologic Review and Mississippi Valley Medical Journal.* All contributions shall not exceed five thousand words, be typewritten in English in manuscript form, submitted in five copies, and must be received not later than May 15, 1938. Further details may be secured from Harold Swanberg, M.D., Secretary, Mississippi Valley Medical Society, 209-224 W. C. U. Building, Quincy, Illinois.

Concerning Elixir of Sulfanilamide.

San Francisco, October 25, 1937.

To the Editor:—Believing that they will be of interest to you, I am enclosing copies of a statement and telegram which I have issued today in reference to the so-called poisonous Elixir of Sulfanilamide.

Office of Director of Public Health
Sincerely,
J. C. GEIGER, M.D.

* * *

(Copy)

October 25, 1937.

STATEMENT

As far as San Francisco is concerned, the problem has been met, with reference to the so-called poisonous Elixir of Sulfanilamide, and the situation is under control. Health officers are in a quandary about this so-called Elixir of Sulfanilamide. So far, no evidence has been produced either by autopsy or chemical formula, or by some biological control such as with animals, to account for the deaths which have been attributed to this drug mixture. Two facts, however, stand out in the tragic picture: First, sulfanilamide, *per se,* though proved toxic in the case of some people, could not alone account for these deaths; second, the solvent allegedly used, diethylene glycol, may be the answer in that the glycol portion is not oxidized in the human body and oxalic acid crystals formed, which will cause kidney poisoning, or uremia and death. The reason the glycols were used may have been primarily for children, for it is sweet in taste.

The question naturally arises as to an answer to such problems, in order to avoid future difficulties. In my opinion, and despite the seemingly insurmountable difficulties and manufacturers' opposition, it is urged that the Federal licensing and control of new medicines, patent or otherwise, intended for human ills should be accomplished. Likewise, the submission of accurate formulas; the proper labeling; and, finally, the creation of an Advisory Committee with frequent meetings, the committee to consist of representatives from the pharmacological groups, medical colleges, American Medical Association, the health officers of America, and the United States Public Health Service.

Office of Director of Public Health,
City and County of San Francisco.

J. C. GEIGER, M.D.,
Director of Public Health, San Francisco.

Copies to the President, Washington, D. C.

* * *

(Copy of Telegram)

October 25, 1937.

Senator Royal Copeland,
Senate House,
Washington, D. C.

Realizing and appreciating your interest in better drug legislation, may I urge in reference to the alleged poisoning from so-called Elixir of Sulfanilamide, that you take steps to create the following: Federal licensing and control of new medicines patent or otherwise intended for human ills, likewise the submission of accurate formulas, proper labeling and, finally, the creation of an Advisory Committee, with frequent meetings, the committee to consist of representatives from the pharmacological groups, medical colleges, American Medical Association, the health officers of America, and the United States Public Health Service.

J. C. GEIGER, M.D.
Director of Public Health,
San Francisco, California.

MEDICAL JURISPRUDENCE†

By HARTLEY F. PEART, ESQ.
San Francisco

Right and Duties of Physicians With Respect to Patients

Acceptance or Declination of Patient.—As the relation of physician or surgeon and patient is one arising out of a contract, express or implied, it follows that a physician may at any time before accepting a person as a patient decline to render services. The right to decline to accept a patient is absolute *if* the physician has not, prior to declining to render services, done an act or made a statement from which it may be said that a *contract* to perform services has been made. In general, a contract between a physician and a patient for the performance of professional services is complete and binding upon both parties whenever there has been an offer and an acceptance. Usually the offer is made by the person desiring to become a patient and is made by the simple act of calling upon the physician and requesting his services. The acceptance of the person's offer occurs when the physician either states that he will perform services or actually commences their performance. When a physician accepts employment either by word or act, a complete contract exists which is binding upon both parties. If a physician desires to decline a person who offers himself as a patient, the declination must be made before anything is said or done from which an acceptance of the offer can be found.

Compensation for Professional Services.—In England, before 1858, a physician could not, as a general rule, recover for his professional services in attending a patient; he was presumed to act with a view only to an honorary reward (*Lipscombe* vs. *Holmes,* 2 Campbell 441, 170 Reprint 1211). The above rule was not applied to surgeons; they could sue for a reasonable compensation (*Poucher* vs. *Norman,* 10 E. C. L. 107, Reprint 909). In the United States the rule prohibiting recovery of compensation by a

† Editor's Note.—This department of CALIFORNIA AND WESTERN MEDICINE, containing copy submitted by Hartley F. Peart, Esq., will contain excerpts from and syllabi of recent decisions and analyses of legal points and procedures of interest to the profession.

physician has never been enforced and a physician has uniformly been held to be entitled to recover for his services in the same manner as any other person who performs services for another. The employment of a physician or surgeon without express agreement as to compensation raises an *implied* agreement on the part of the parties employing him to pay the reasonable value of his services within a reasonable time after they are rendered (*Heintz* vs. *Cooper*, 5 Cal. Unrep. 564).

Services to Unconscious or Incapable Person.—Where a physician renders services to a person injured by an accident, rendering that person unconscious or otherwise incapable of making a request for or expressing consent to professional services, the law will imply a promise from him who received the benefit of the services to pay for them. One very important exception to this rule must be emphasized, namely, that physicians' services rendered to one accidentally injured, even if rendered unconscious, are not compensable if immediate attention is not required, and this is particularly true where there is free ambulance service and free hospital treatment furnished by the municipality (48 Cor. Jur. 1158). On the other hand, it has been held that a physician is entitled to recover compensation for services rendered immediately after an accident, even though he was called by a spectator and proceeded to treat the injured person without being asked so to do (*Schoenberg* vs. *Rhoades*, 145 N. Y. Supp. 831).

Inability to Recover Compensation, if License to Practice Is not Recorded in the County Where the Services Were Rendered.—Section 2340 of the Business and Professions Code, requires every physician to register his certificate in the office of the County Clerk in every county in which he is practicing his profession. A physician who has *not* complied with Section 2340 is not entitled in an action at law to recover his fees for professional services rendered (48 Cor. Jur. 1159).

Right to Recover Compensation as Dependent on Beneficial Result of Services.—In the absence of an express agreement to the contrary, the right of a physician or surgeon to be compensated for his services does not depend upon the measure of his success in effecting a cure by the means employed, but upon diligent exercise under his employment of the skill commonly exercised by those practicing his profession in his locality (*Harvey* vs. *Richardson*, 91 Wash. 245, Ann. Cases, 1918a, 881). However, it must be mentioned that a contract between a patient and his physician that the latter's right to compensation shall be dependent upon his curing the patient is valid and binding, even though no specified compensation is agreed upon. If a physician attends a patient under a contract that if there is no cure there shall be no pay, he cannot recover for his services unless he shows that a cure has been effected (*Hollywood* vs. *Reed*, 57 Mich. 234).

In future articles we will continue the above discussion. In an early issue we will discuss the effect of negligence or malpractice on an action to recover compensation as well as other matters relating to a physician's rights and duties with respect to his patient.

SPECIAL ARTICLES

A YEAR'S REVIEW OF PUBLIC HEALTH IN CALIFORNIA*

Public health in California has advanced during the last year, particularly in the development of organized efforts to provide essential services in those districts of the State where such services have heretofore been lacking. Of first importance is the formation of new full-time county health units, of which there are now twenty operating in California. There is, in fact, a continuous and unbroken chain of such units extending along the coast from San Francisco to the Mexican border and to Arizona. In addition, most of the counties of the great interior valley of the San Joaquin are organized to provide residents with full-time service. The total population under these twenty units is, according to the 1930 census, 1,788,000—which represents 31.5 per cent of the population of the State. Ten of the State's municipalities have full-time health departments which are not affiliated with county units; their total population, according to the last federal census is 2,680,000, representing 47 per cent of the population of the State. This means that a total of 4,470,000 California residents, nearly 80 per cent of the population of the entire State now enjoy the benefits that come through adequate full-time public health service.

EPIDEMIC DISEASES

Since our last meeting, no major outbreaks of epidemic diseases have occurred. Acute poliomyelitis has, fortunately, not assumed epidemic proportions, although there is a seasonal increase at the present moment. Influenza, while prevalent during the winter months, did not present a picture to cause undue alarm. Little change in the prevalence of diphtheria and typhoid fever has been noted, although the tendency of each has been toward a decrease. Smallpox, in some unvaccinated communities, has flared up slightly, emphasizing the importance of eternal vigilance in the exercise of preventive measures. As a matter of fact, the control of diphtheria, smallpox and typhoid fever has resolved itself into routine administrative procedures, neglect of which, at any time, and however slight, may produce damaging results to the statistical record of any community. With cases and deaths reduced to almost a minimum in many counties, the appearance of a small group of cases of any of these three diseases may ruin favorable statistical records. Too great emphasis cannot be placed upon the importance of continuing immunization procedures in the control of smallpox and diphtheria, without lapses or breaks in continuity. The achievement of minimal morbidity and mortality rates constitutes a valid argument for maintaining successful control measures continuously in order that there may be certain tenure of the winning positions now achieved in most communities after waging successful contests against these destructive diseases.

VENEREAL DISEASE

The newly reorganized campaign against the venereal diseases provides exceptional opportunities for advancing in neglected or overlooked fields of endeavor. The legal provisions of the new act for the control of the venereal diseases equip the local health officer with weapons that must be used with skill, good judgment, and tact in order to obtain definitely successful results. The venereal disease program will be discussed in detail at a later session, but I desire at this time to advise the health officers of the State that an unprecedented opportunity in venereal disease control is now within the grasp of each and every such official. The problem is of enormous proportions in some of the urban centers, particularly where commercial prostitution prevails and where agricultural and unskilled labor centers are maintained. The incidence of venereal diseases is unknown in many districts of the State. New report forms, circularization of practitioners, and publicity have helped to stimulate reporting by physicians who have, heretofore, not reported cases under their care. The full coöperation of health officers with practitioners of medicine is of first importance in the successful administration of the new law for the control of the venereal diseases.

MIGRATORY LABOR

In some parts of California, migratory laborers who have flocked into the State create problems that are particularly disturbing. Many different agencies are engaged in coping against undesirable health and social conditions that prevail among these workers—conditions that they have brought with them into California and which must be controlled in order to protect the health of the residents of local communities, and of the whole State. Similar conditions although not so extensive, have been encountered in California many times before and there would seem to be no reason to believe that the general health of the public will suffer from this new invasion of migratory laborers into California. The problem that they present for future solution is of great economic, social and educational importance, and its present public health significance is very great. With active organized public health units assisted by State, Federal, and other agencies, there is every reason to believe that the solution of the migratory labor problem will be far easier for public health administrators than it will be for the body politic.

* Paper read at the Health Officers' Section, League of California Municipalities, San Jose, September 13, 1937. By W. M. Dickie, M.D., Director of Public Health State of California.

PLAGUE

Until recently it has been believed that rodent plague is unique in California, but it is now known definitely that plague is a problem of importance in all of the western states, infected rodents having been found recently in almost every state of the Pacific slope. There is every reason to believe that at one time an epidemic of rodent plague swept through western United States, leaving foci of infection in many states.

In the extensive research work that is now being done among rodents in California we have found that in many areas, fleas combed from rodents, including ground squirrels, chipmunks, wood rats and field mice, show plague infection. Infected fleas are found on infected rodents and they are also found on many rodents that show no sign of disease. The exact significance of this is unknown at the present time. For this reason, the presence of infection in rodents will continue to be regarded as a true index of a plague-infected area. It is hoped that the extensive research work that is being done by various health agencies will clear up many unexplained points in the transmission of the disease.

It is imperative, at all events, that every effort be made to extend our knowledge into the epidemiology of this disease, which, in world history, has played such a murderous rôle in the destruction of mankind.

SOCIAL SECURITY

With the provision of federal assistance under Social Security, the difficulties associated with the provision of adequate health services in the rural counties, without organized units, have been eased considerably. Spectacular results have not been obtained because the newly established services have been in operation for a very short time. There is evidence, however, that residents of many extreme rural areas are now provided with modern public health services that have been denied to them heretofore. Without doubt a demand for continuous public health services will follow and the present demonstrations lead to permanently established machinery for the maintenance of high health standards in the rural districts.

INFANT MORTALITY

Last year the State's infant death rate increased, particularly among the white population of the State (including Mexican) and there was an increase in the number of maternal deaths. The infant mortality rate, for many years, has been regarded as a sensitive index to general health conditions. Because it is based upon the proportion of infant deaths to the number of live births registered, rather than population (which is just now an unknown quantity) it has been assumed that the rate possesses a definite and reliable index to the work of the local health department. It would seem, now, however, that it has been demonstrated successfully that biological and other factors uncontrollable by humans are often decisive in determining the infant mortality rate in those districts where full and adequate service is given to prospective mothers and their infants. Detailed studies of infant mortality and maternal mortality, with particular reference to race, economic status of the family, education, constitutional disease in the parents and similar attributes would, without doubt, explain the reason for a large number of unpreventable infant deaths. At all events, it would seem fallacious to judge of any health unit upon the fluctuations in its infant mortality rate from year to year. It would be far better to base evaluations upon average rates, decade by decade, or at least by five-year periods. There is an opportunity for health officers to make careful studies of their infant death rates, in order that the causative factors may be accurately recorded. Until such time, it would seem that an entirely unfounded and mistaken evaluation might be made of the public health services involved.

CRIPPLED CHILDREN

Since the act for the relief of physically handicapped children went into effect, more than one thousand such individuals have found relief under its beneficent provisions. Under Social Security during the past year, it has been possible to conduct more clinics for the discovery of crippled children. As a result, treatment has been provided for large numbers of the physically handicapped, who might otherwise have gone through life a burden to themselves, their families, and to society. The results obtained through work among crippled children are so spectacular and so successful that they make a strong appeal not only to those who are engaged in public health activities, but to the general public as well.

PUBLIC HEALTH NURSING

During the past year large numbers of public health nurses have been placed in rural counties, where public health nursing service has never been applied heretofore. Public health nursing is an integral part of any adequate program in public health administration, and the enlarged opportunities for providing this service prove of great advantage not only to public health nurses, but also to the communities where this new service has been made available. It is hoped that there may be continued opportunities for extending public health nursing throughout all parts of California.

THE HEALTH OFFICERS' OPPORTUNITY

These are but some of the highlights in the public health of California that have appeared since the last meeting of this section. There are many other important topics for which there is not sufficient time to consider here.

No discussion of public health in this State during the past year, however, can be complete without mention of the many social, economic and political waves of unrest that are apparently affecting the daily lives of our people. The general consternation over labor disturbances, living conditions and economic upheavals of many sorts, is shared by the health officer as well as other servants of governmental units. In such a time of unrest, the provision of adequate public health service is essential. Programs must be devised and administered to fit conditions that may prevail in each particular local community. The local health officer has greater responsibilities than ever before. To know definitely the needs of the community and to provide effective public health service to fit such needs, requires keen discernment and administrative attributes of a high order.

The health officers of California have not failed in providing important service in the advancement of public welfare, and in spite of the important changes that occur almost daily in our social, economic, and political life, there is every reason to believe that the public health profession of this State will carry on in accordance with the tradition and prestige of preventive medicine.

IMPEDIMENTS TO MATERNAL HEALTH*

It is frequently asserted that two-thirds of maternal deaths are due to causes which are preventable. The assertion is undoubtedly real and is an indictment against the medical profession and the laity alike. But prevention by what means? Statistics inform us that one-third of all puerperal deaths are due to septicemia, approximately another third are attributable to albuminuria of pregnancy—toxic conditions—while all other causes contribute to the remaining third. These figures refer to the recorded cause of death, but do not indicate some fundamental factors responsible for maternal deaths.

ECONOMIC AND SOCIAL STATUS

The first of these underlying factors concerns the economic and social status of the patient. It is well known that the largest families are found among the "lowest" social and economic groups. It is significant that in a recent study it was found that not only was the birth rate highest among those in the lowest income brackets or on relief, but that among those families in which the social and economic status had progressively dropped between 1929–1932, the birth rate rose in almost direct ratio. The inherent social implications in these facts are many, but suffice it to say that where the environmental, nutritional, and medical needs are greatest, they are economically least obtainable.

The same one-third of our people who, in the words of President Roosevelt, are "poorly housed, poorly clothed, poorly fed," also get poor obstetrical care. Untrained, unsupervised midwives deliver several hundred thousand babies each year, and for at least 40,000 births there is no attendant. For the unemployed, for those living on a sub-

* By Thomas Parran, M. D., Surgeon-General, United States Public Health Service.

sistence level, for the poor farm families, I see no way of providing good obstetrical care except as a community responsibility. But you ask: "Can we afford it?" We cannot afford the price of continued neglect.

The maternal risks in relation to age of the mother increase beyond twenty-five years, reaching a maximum at forty years or over. The life hazard for the mother is greatest at the birth of the first child. In 1927, the first-born constituted 27 per cent of all births; in 1931, 31.9 per cent. In that same period there was an increase of 11 per cent in the number of mothers at age twenty-five giving birth to the first child, and a like increase among those of forty years. It is not unreasonable to assume that late marriages and one-child families, related as they are to economic and social problems, undoubtedly contribute to the maintenance of a high maternal death rate.

IGNORANCE AND INDIFFERENCE

A second factor underlying the material mortality rate is the ignorance or indifference of the patient. In the cities of New York and Philadelphia, it was found that approximately one-third of all maternal deaths were attributable to ignorance or lack of coöperation on the part of the patient. A recent report made by the Children's Bureau shows that 51 per cent of the women dying from puerperal causes had had no prenatal supervision and 10 per cent had not seen a physician or the doctor was called for the first time when the patient was moribund. Only 12 per cent had prenatal supervision which might be considered adequate. One cannot be complacent in the face of such facts. The opportunity for parents to know the essential needs of maternal care and the development of facilities to make available the necessary services are challenges confronting the public health authorities, physicians, and laity alike.

ABORTION

The third factor is the interrupted pregnancies through intentional abortion. Too infrequently is this large cause of death given consideration. . . . *Studies indicate that the abortion index between 1918 and 1932 increased more rapidly than the birth index.* Of approximately three thousand pregnancies in New York City, 30 per cent terminated in abortions; three-fourths being illegally induced abortions. The amazing fact is that approximately one-fourth of all maternal deaths follow interrupted pregnancies. Nearly three-fourths of the deaths associated with abortions were due to sepsis, and deaths due to septic abortions constituted half of all the deaths from puerperal septicemia, which is the greatest single cause of maternal mortality.

These figures are appalling, but they represent only the known cases and constitute only a small fraction of the total number. We were aware of the real facts, the magnitude of the problem would be more overwhelming. It is not one that is limited to the unmarried mother, although the death rate is higher in this group, but extends into the core of our social structure—the family. A survey of ten thousand clinic patients in New York City showed that 15 per cent of pregnancies were terminated by criminal abortions during the first five years of marriage. After ten years of married life, the rate rose to 40 per cent.

SYPHILIS

A fourth impediment to maternal health is syphilis. Yet it is the most easily correctible of all factors I have discussed. While syphilis is not a direct cause of maternal deaths, it is the greatest single cause of stillbirths. An average of one baby in every sixty born in this country carries the germ of syphilis in its body, yet no woman need bear a syphilitic child. Connecticut has paved the way by a state law which requires a physician's certificate and a laboratory test showing freedom from syphilis before a marriage certificate is issued.

I have discussed four great impediments to maternal health: poverty, ignorance, unwillingness to bear children, and disease. Until we shall have lifted the load of poverty, the community can at least share its burden to the extent of giving the minimum essentials of care during pregnancy and at childbirth to those women unable to secure such care for themselves. Good care will prove in itself a potent force in combating ignorance. It is scientifically possible to keep the germ of syphilis out of the bodies of our babies, but unless science is given a chance to operate, it is useless. Guiding the expectant mother into channels of thought which will result in a consultation with her physician on this specific consideration, is a problem which health organizations can materially aid in solving.

I scarcely know which is the greater tragedy—the unwanted child or the syphilitic child. Surely, from the standpoint of the community the syphilitic child presents the more complex problem. It is only the women themselves, and not their doctors, who can do something about the unwanted child and the deaths from abortion, sepsis, and death which results from preventing its arrival. But the community must assume a great part of the responsibility for the prevention of syphilitic children by careful, conscientious insinuation of better medical care. If expectant parents can be taught to give science a chance on this often neglected ground, science can reasonably be expected to carry out its full obligation to the community.

INFANT AND MATERNAL MORTALITY IN CALIFORNIA*

Infant mortality provides a sensitive index to public health conditions. The steady downward trend in the infant mortality rate for California from 1906 to 1935 indicates, clearly, the improvement in general health conditions. The rate in 1906 was 160.0 and in 1936 it was 53.0. If deaths of infants belonging to the foreign-born were excluded from this tabulation, the rate for the white population would equal, if not better, the outstanding rates of New Zealand—32.0 in 1933 and 1934.

Infant Mortality—California

Year	Rate	Year	Rate
1906	160.0	1921	66.3
1907	139.0	1922	71.1
1908	128.0	1923	72.9
1909	113.0	1924	67.1
1910	116.0	1925	68.5
1911	101.0	1926	62.9
1912	100.0	1927	62.5
1913	99.0	1928	62.4
1914	86.0	1929	63.0
1915	74.0	1930	58.6
1916	73.0	1931	56.5
1917	78.0	1932	52.8
1918	83.0	1933	53.4
1919	70.0	1934	51.6
1920	75.0	1935	49.5
		1936	53.0

While funds have never permitted such work to be conducted to a degree of completion, there is significance in the fact that the Bureau of Child Hygiene has, since 1923, made examinations of more than 250,000 children, most of them in the rural districts of the State. To be sure, there are sections where this type of service is lacking entirely and where no machinery is provided. In spite of this, the work is being extended and eventually there is every reason to believe that adequate public health protection may be provided for most of the rural districts of the State.

In 1936, four hundred and one mothers died in childbirth in California and in 1925, four hundred and ninety such deaths occurred. There has been a general reduction in the maternal mortality rates within the State. Were it not for abortions and conditions that are not amenable to change in California, the maternal mortality rate might well be reduced by one-half.

* See also page 301, in this issue.

Maternal Mortality—California, 1925-1935

Year	Rate	No. of Deaths
1925	5.7	490
1926	5.2	428
1927	5.3	447
1928	5.5	463
1929	5.2	426
1930	5.2	443
1931	6.2	510
1932	5.7	448
1933	4.8	364
1934	4.4	346
1935	4.7	375
1936	4.7	401

WHAT ABOUT ABORTION?*

The three most important causes of maternal mortality are the toxemias, puerperal sepsis, and abortion. Each, according to figures of the United States Children's Bureau, is responsible for nearly one-fourth of the deaths of mothers.

Extensive scientific research is being devoted to the toxemias, and good prenatal care appears to offer a method of reducing the frequency of serious complications from this group of diseases. Efforts are also world-wide against puerperal sepsis. Recent progress here has perhaps been slow, but when one looks at the history of the last hundred years, it is clear that the reduced frequency of infections after delivery has been obstetrics' most brilliant achievement. But what about abortion? It offers a threat to maternity which has steadily increased in seriousness and importance. Yet, because of the complexity of its social, economic, and religious aspects, abortion presents a problem few have had the courage to approach. Furthermore,

Causes of Maternal Deaths

Toxemias	23 per cent
Sepsis	23 per cent
Abortion	22 per cent
Hemorrhage	10 per cent
Other accidents	13 per cent
All other causes	9 per cent

—United States 1933-1935 Children's Bureau, United States Department of Labor.

since it is not a purely medical question, the physician feels his responsibility less directly, while legislators and social agencies also regard it as not definitely in their fields. Nevertheless, abortion explains such a large fraction of our present maternal mortality that it is a tempting field to enter.

Here are a few facts about abortion. Doctor Taussig, the author of a recent book on this subject, has estimated that there are 681,000 abortions in the United States every year, with a resultant eight thousand deaths. Forty years ago the ratio of abortions to confinements was probably about one to seven, but Doctor Taussig believes that througout the country it is now one to three. In some industrial centers the number of abortions perhaps equals the number of full-term deliveries! Over one-half of the illegal abortions are done by physicians, one-fifth by midwives, and the remainder by expectant mothers themselves.

The reduction in the deaths from abortion cannot be achieved by medical research but by a fundamental attack upon many basic social problems. The motives which drive the patient to seek abortion must be analyzed and the causes, if possible, removed. This leads one at once to the problem of improving the prospects for the unmarried mother and her illegitimate child; to the removal of some of the economic hazards which face the young married couple living on an income inadequate for three persons; to the need of allaying prevalent fears of the physical discomfort and the risks of childbirth; and to the necessity of developing in all married persons a sense of their share in the responsibility of producing a new generation. These are fundamental needs which will require years of careful planning.

Efforts to suppress the abortionist himself have met, in the past, with little success. There will always be a few physicians willing to do these operations, and juries will not be too hard on men performing a function which society, shamefacedly perhaps, condones. The conscientious physician can still do much by disciplining his colleagues and by controlling medical opinion, as well as by directing his patients to other solutions of their problems.

A spread of knowledge is an important beginning toward a solution of the problem. A woman who has discovered the possibilities of abortion through gossip with a friend little realizes the dangers that are involved. These she should learn. First, she may die; an unlikely result for the individual woman concerned, but it is what happened to several thousand American women last year. Much more often she will become sterile from the effects of the moderate infections which frequently follow such procedures. At best, she is subject to the psychological degradation of doing in secret what she is ashamed to do openly, to close contact with a man or woman whose ethics, in one respect at least, are not of the best, and finally to the remorse in later years of thinking of a son or daughter who might have been born.

Many abortions are undertaken on the impulse of the moment, when an unexpected pregnancy clouds the immediate future. A friendly word of encouragement and warning, a discussion of the many risks, will often serve as a check until, after a few weeks of mental readjustment, the pregnancy is gladly accepted. Such a word must often come from the physician, but it is as valid from any other friend.

* By Howard C. Taylor, Jr., M.D.

ECONOMICS OF VENEREAL DISEASE CONTROL

For several years the United States Public Health Service and many State Departments of Health have been devoting particular attention to the problem of venereal diseases. Recently comprehensive measures involving the expenditure of considerable sums have been instituted for the control of these diseases. It is naturally assumed that all of this activity and expenditure will be justified by results.

When the taxpayer is burdened as he is today, when industry groans under the charges it must bear, is it right to demand continued and increasing expenditures for this purpose? It is not unless it can be shown conclusively that the adoption and continuation of comprehensive control measures bring actual results. With some, unless an economic justification can be found for the program proposed, its timeliness might be seriously questioned. "Before discussing what aid may be expected in the battles against these diseases from the National Security Act, it will be worth while to consider the essential planks in a platform for venereal disease control as a community responsibility."

1. "Work for more complete information on the prevalence of these diseases and other factors in planning their control.

2. Provide adequate laboratory and consultation services to assure accurate diagnosis for all possible cases.

3. Secure prompt treatment for all infectious cases, and provide aid in keeping them under treatment and observation.

4. Develop an epidemiological investigation service to discover and induce contacts and sources to seek examinations and necessary treatment.

5. Supply drugs and other therapeutic aids as necessary.

6. Increase the number of persons seeking diagnosis and treatment from competent private practitioners by offering the above services to physicians for their patients when required.

7. Supplement the maximum private practice care of cases by offering similar aid to existing private and public clinics.

8. Establish such additional public health clinic and consultant services as may be necessary to provide fully for proper treatment of all cases.

9. Advocate as an added safeguard to public health and for the welfare of individuals and the general public, treatment and after-care of late syphilis and chronic gonorrhea cases.

10. Make available hospital bed facilities and service for all cases requiring such care for themselves or as a protection to their families and community groups.

11. Conduct a continuous campaign of public information and aid the education authorities to include appropriate material in permanent health education programs.

12. Promote prophylactic procedures under such safeguards as will insure scientific application and keeping the individuals under observation until freedom from infection is certain.

13. Correlate and carry on recognized measures and activities for protection of individuals and communities against practices, amusements, and environmental influences favoring the dissemination of syphilis and gonococcal infections.

14. Encourage further research, including study of improvement in methods of applying the knowledge acquired."

All of the above cannot be carried out in many communities and Dr. William F. Snow further subdivides them in six groups:

1. Diagnostic services:
   (*a*) Laboratory service.
   (*b*) Consultation service.
   (*c*) Special examination and advice centers.
2. Case findings and holding:
   (*a*) Familial syphilis cases.
   (*b*) Early syphilis in young men and young women.
   (*c*) Congenital syphilis cases.
3. Securing or providing treatment:
   (*a*) For syphilis in pregnant women.
   (*b*) For syphilis in young married men and women.
   (*c*) For syphilis and gonorrhea in children.
   (*d*) For early gonococcal infection of young married men and women.
   (*e*) For other cases of early syphilis and gonorrhea, and for the remaining cases as personnel, drugs and other facilities permit.
4. Information service:
   (*a*) Adult education and publicity concerning these diseases and what may be done about them.
   (*b*) Assistance to education authorities and voluntary agencies in carrying out permanent educational plans for incorporating sex education and knowledge of syphilis and gonococcal infections in health education courses.
5. Reporting and the collection of other data:
   (*a*) Confidential case reporting for diagnostic, epidemiological, treatment, and other administrative purposes.
   (*b*) Securing and tabulating of other information regarding history and disposition of cases.
6. Research and demonstration activities:
   (*a*) Further research on problems of syphilis control.
   (*b*) Further research on problems of gonorrhea control.
   (*c*) Studies and demonstrations of related administrative measures.

"It is evident that a workable program such as this summary implies could be operated on a nation-wide scale only through coöperation of all the states and the Federal Government. It is fortunate that the Social Security Act recognizes this by providing for federal, state, and local coöperation in the prevention of disease and promotion of health. As a result the opportunities have been greatly broadened for including the control of syphilis and gonorrhea in the enlarged program for conservation of national vitality under the stimulating leadership of the United States Public Health Service, the Children's Bureau, and other governmental agencies."

Now to some figures from the Army back in 1918. Most of the men drafted for the Army came from industries of the country, and surely they were not picked from an inferior group. In the second million men drafted, 5.6 per cent had a venereal disease at the time of examination upon arrival at camp. That is, on a particular day one man out of eighteen was infected. During the period of a year the proportion would be even larger.

"Army figures show the importance of venereal diseases as a cause of disability. During 1918, for every one thousand men in service 1,563 days were lost on account of venereal infection. More than four men in a thousand were always on the list of ineffectiveness, in hospitals or infirmaries for this reason. The number of days lost because of these diseases totaled 3,937,710. In 1919, for a much reduced army, the number of days lost was 1,923,420. 'It may be conservatively estimated,' states the officer in charge of this branch of the service, 'that the actual loss to the Army caused by venereal diseases during the year 1919 was not less than $15,000,000.' Were the measures adopted for control worth while? The Army surely thought they were and every effort was expended in the endeavor to keep the rate of infection as low as possible."

Translate these figures to industrial life. Assuming there are at least ten million men in industries alone today, it can easily be estimated that the time lost is approximately 15,630,000 days. Industries do not pay by the month at $90 and board and barracks as the Army did in 1918–1919, so take a wage, say, of $4 per day and the loss is more than $60,000,000 annually. Consider the amount of coal that would not be mined, the lumber that would not be cut, etc.; the situation is present in all groups, naturally worse in some, but ever present, and it is not only time lost, for a worker infected with a venereal disease cannot be efficient for he does not know how far that infection has gone, either personally or otherwise. He is likely nervous and afraid. There is no way to estimate the road accidents caused by syphilis for eventually it affects the nervous system and a nervous breakdown may occur at any moment.

Is it worth while to spend the money for control of venereal disease? Consider that one of fifteen of the insane are in state institutions because of syphilis and that blind institutions have a great percentage of inmates due to gonorrhea.

Money well spent now in this cause will, in the next generation, bring back results a thousandfold. — *Ohio Health News.*

CALIFORNIA TYPHOID REGULATIONS AMENDED

The California State Board of Public Health, September 14, 1937, amended its regulations for the control of typhoid fever and paratyphoid fever so as to provide more definitely and precisely for the control of carriers. Section 7 of the regulations now reads as follows:

Rule 7. Typhoid or Paratyphoid Carriers

Any person who has been free from symptoms of typhoid fever or paratyphoid fever for one month and whose feces or urine contain typhoid or paratyphoid bacilli, shall be considered a convalescent carrier.

Any convalescent carrier whose feces or urine continue to contain typhoid or paratyphoid bacilli after one year following clinical recovery, shall be considered a chronic carrier.

Any person whose feces or urine contain typhoid or paratyphoid bacilli but who gives no history of having had typhoid fever or paratyphoid fever shall also be considered a chronic carrier.

Any known or suspected typhoid or paratyphoid carrier shall be reported to the local health authority, who shall investigate and report the findings to the State Department of Public Health.

Carriers of typhoid or paratyphoid bacilli shall be subject to a modified quarantine by the State Department of Public Health, and the provision of this quarantine shall be considered as fulfilled during such period as the carrier observes the instructions issued by the State Department of Public Health and the local health authority. Such instructions shall include:

1. The carrier shall take no part in the preparation, serving or handling of milk or other food which may be consumed by persons other than his own immediate family.

2. The carrier shall not participate in the management of a dairy or other milk-distributing plant, boarding house, restaurant, food store, or any place where food is prepared or served.

3. The carrier shall keep the local health authority informed at all times of any change of address or occupation.

In the event of any known or suspected carrier leaving the jurisdiction of a local health authority, the State Department of Public Health shall be notified by the local health authority of the name of the carrier and his destination.

Violation of any of the provisions of this modified quarantine shall constitute an infraction of quarantine regulations and as such be punishable under Section 377a of the Penal Code.

The following instructions for health officers in controlling typhoid fever, paratyphoid A and B carriers have been appended to the regulations:

Instructions for Health Officers

Typhoid Fever, Paratyphoid Fever A and B Carriers

It has been estimated that from 2 to 4 per cent of all cases of typhoid fever become chronic carriers. Some

carriers continue to harbor and discharge the bacilli in the feces or urine for many years, and since many discharge the organisms only intermittently, they may not be discovered through single laboratory tests.

Definitions

According to the regulations of the State Board of Public Health, carriers are either convalescent carriers or chronic. A convalescent carrier is anyone who has been free from symptoms of typhoid fever or paratyphoid for one month and whose feces or urine contain typhoid or paratyphoid bacilli; however, any convalescent carrier whose feces or urine continue to contain the organisms after one year following clinical recovery, shall be designated a chronic carrier. Also, any person whose feces or urine contain typhoid or paratyphoid bacilli even though he gives no history of having had typhoid or paratyphoid fever shall be designated as a chronic carrier.

Investigations

The regulations for the control of typhoid and paratyphoid fevers require the local health officer to investigate each reported case of typhoid fever, to ascertain the sources of infection and to report his findings to the State Department of Public Health. In conducting such an investigation it is advisable to require a series of three specimens of feces and urine from each suspected carrier and also to require specimens of feces and urine from each of the adult members of the household under investigation—particularly the food handlers. Feces and urine specimens should be required also from any contacts who might be considered possible sources of infection.

Laboratory Requirements

Specimens of feces and of urine should be submitted in special containers provided by the laboratory.

Whenever specimens are taken for the laboratory diagnosis of typhoid fever (and this includes specimens from suspected carriers), they shall be sent to a laboratory approved by the State Board of Public Health. Of course, a specimen may be sent to a laboratory that is not approved provided the specimen is divided and at the same time sent to a laboratory holding the approval certificate of the State Board of Public Health.

All laboratories approved by the State Board of Public Health making examinations for the identification of typhoid or paratyphoid carriers shall, in all positive cases forward to the State Bureau of Laboratories, a culture of the organism the isolation of which established the diagnosis.

Reporting

A typhoid or paratyphoid carrier shall be reported to the State Department of Public Health at once. He is a potential source of infection and is required to follow definite regulations to prevent the spread of infection to others. The restrictions imposed upon these carriers refer mainly to the handling of food. Provided they meet these requirements their activities will otherwise be unhampered. The health officer should never reveal to the public the name and address of a carrier unless the carrier refuses to comply with the regulations and thereby fails to coöperate.

Instructions

When a carrier has been discovered, the health officer or his representative is required to conduct an investigation, explaining to the carrier his condition as a carrier, issuing specific instructions and obtaining the carrier's signature on the agreement blanks, with one copy for the carrier, one for the health officer, and one for the State Department of Public Health.

The specific instructions issued by the local health officer should be in writing and should cover the following points:

1. Carrier to take no part in the preparation, serving or handling of milk or other food which may be consumed by persons other than his own immediate family; and not to participate in the management of a dairy or other milk-distributing plant, boarding house, restaurant, food store, or in any occupation involving the preparation or handling of food, or in any place where food is prepared or served.
2. To encourage every member of his family to be immunized against typhoid fever every three years.
3. To wash his hands thoroughly after using the toilet, with plenty of soap and hot water and also before handling food in the home.
4. To use an adequate amount of quick lime in an outdoor privy (if such must be used), keeping same in a good sanitary condition and fly-proof.
5. To keep the local health officer informed at all times of his address and any change of occupation.
6. To report to the local health officer immediately any cases of illness in family or among immediate associates.
7. To discuss any problems arising concerning his carrier state with the health officer.
8. To communicate with the health officer before submitting to any type of treatment or attempted cure of the carrier condition.
9. Not to be permitted to live or work upon the premises of a dairy except with written permission of the Director of the State Department of Public Health.

At least twice each year the health officer should visit each recorded carrier in his territory to check the occupation, other activies, and the address. We do not recommend the collection of feces and urine specimens from those persons definitely proved to be carriers.

Release of Chronic Carriers

Those persons proved to harbor typhoid or paratyphoid organisms in their urine will not be released at any time.

Those persons proved to harbor typhoid or paratyphoid organisms in the feces are not subject to release except with the written permission of the Director of the State Department of Public Health.

There is no known medical treatment for the cure of the chronic carrier condition. Removal of the gall-bladder in selected cases offers a 60 to 75 per cent chance of cure in those cases proved to be gall-bladder carriers. Only those considered good surgical risks should be accepted for operation. Definite instructions issued by the State Department of Public Health must be carried out to obtain the release of such a carrier.

The surgeons contemplating gall-bladder removal in these selected cases should follow these rules:

1. Positive duodenal specimens should be obtained before surgery. Unless a positive duodenal specimen is obtained it is not advisable to operate, as the infection may not be localized in the gall-bladder. In submitting duodenal specimens the surgeon should make certain that the specimens contain bile.
2. Health officers to be notified.
3. After surgery the release of the carrier rests with the Director of the State Department of Public Health, and not the surgeon.
4. After clinical recovery of the patient the following procedure shall be carried out:

(*a*) Eight successive negative feces specimens taken not less than two weeks apart, must be obtained.

(*b*) These specimens to be taken under the supervision of the health officer and submitted to the State Bureau of Laboratories or to such other laboratory as may be designated by the Director of the State Department of Public Health.

(*c*) In addition to the eight negative feces specimens, three successive negative duodenal specimens taken after clinical recovery and not less than two weeks apart, must be obtained. These specimens to be taken under the supervision of the health officer and submitted to the State Bureau of Laboratories or to such laboratory as may be designated by the Director of the State Department of Public Health.

Typhoid or Paratyphoid Carrier Agreement

Address: .. ..

Date: ... .

Dr. W. M. Dickie, Director
State Department of Public Health
Sacramento, California

My dear Doctor Dickie:

I have been informed that my excreta contain typhoid bacilli and that unless unusual precautions are taken persons will contract typhoid fever from me. Realizing this danger I hereby agree to observe the precautions stated below that I may be permitted to remain in free communication with other persons.

1. I shall take no part in the preparation or handling of milk or other food which will be consumed by other persons than my own immediate family. I shall not participate in the management of a dairy or other milk-distributing plant, boarding house, restaurant, food store, or in any occupation involving the preparation or handling of food.

2. I shall inform the local health officer of any contemplated change of residence so that he can notify the State Department of Public Health and obtain their approval.

It is understood that the California State Department of Public Health or the local health officer will not make public the fact that I am a carrier unless I in some way violate this agreement.

....
(Signature)

Witnesses:

(1) ....

(2) .. ..

TWENTY-FIVE YEARS AGO†

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. X, No. 11, November, 1912

From Some Editorial Notes:

Appreciation? No! Abuse!—The energetic efforts of the medical profession to protect the people against preventable diseases and epidemics are evidently neither desired nor appreciated by the people. In San Francisco and other places, great resentment was expressed because the medical profession urged strict muzzling laws in order to stamp out rabies—a disease so easily prevented and yet so entirely incurable. In various parts of the State we have today smallpox; and *at last* the type has changed and become virulent, just as has been expected. And yet the people do not want protection against this easily prevented disease; they will wipe out even the present poor vaccination law at the next session of the Legislature. They will not allow the State Board of Health to properly guard and control sources of water supply, and so a number of sections are having epidemics of typhoid—another easily prevented disease. In the south the physicians of Los Angeles forced an active and successful fight against poliomyelitis; did the people appreciate it? Not at all; they heaped abuse upon the men who had given their time and their work for the people's benefit. Quarantine "hurts business"? . . .

From an Article on "Labor in Moderately Contracted Pelves, with Special Reference to Cesarean Section" by Henry J. Kreutzmann, M.D., San Francisco.—Progress in science and practice of medicine has never been made in a steady, onward march, nor in a straight line; but always by leaps and bounds in a zigzag line, with many side steps. All the different branches of medicine are subject to this rule; obstetrics does not make any exception. . . .

From an Article on "Operative and Postoperative Tonsilar Hemorrhage" by W. S. Franklin, M.D., San Francisco.—The essayist in presenting this paper does not attempt a digest of the literature on the control of operative and postoperative tonsillar hemorrhage, but wishes to give an account of his operative experience with the enucleation of the tonsil and the means found successful in controlling the bleeding.

For the past six years my work in tonsillar surgery has been what may be called radical, inasmuch as the tonsillotome has been discarded, as well as slitting the lacunae, cauterization, and the use of the punch. In all cases removal of the entire tonsillar mass, including the intact capsule, was attempted. . . .

From an Article on "Thrombosis of the Sigmoid Sinus and Jugular Vein, From Direct Tympanic Infection of the Jugular Bulb—A Report of Two Cases" by Hill Hastings, M.D., Los Angeles.—One, if not both, of these cases comes, I believe, under the classification of direct jugular bulb infection, from acute middle-ear suppuration. Similar cases have been reported from time to time during the past few years, but not a sufficient number put on record to impress the general profession with the possibility of the rapid development of this dangerous complication. . . .

From an Article on "Patulous Anus: Its Clinical Significance" by Alfred J. Zobel, M.D., San Francisco.—In a normal individual the anal canal is held closed tightly by the tonic contraction of its sphincter muscles. In certain individuals, however, we observe that when the buttocks are drawn apart there is more or less gaping of the anal orifice. . . .

(Continued in Front Advertising Section, Page 20)

†This column strives to mirror the work and aims of colleagues who bore the brunt of Association work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By Charles B. Pinkham, M.D.
Secretary-Treasurer

Board Proceedings

The annual meeting of the Board of Medical Examiners opened at the State Capitol, Sacramento, October 18, at 10 a. m.

Approximately sixty applicants, including physicians and surgeons, chiropodists, and drugless practitioners, appeared for written examination.

Twenty-three licentiates have been cited before the Board, to show cause why their licenses should not be revoked, based on various charges, including alleged illegal operations, narcotic derelictions, and violation of probation. The judgment of the Board in each case will be included in "News Items" for December.

News

"The California Supreme Court yesterday denied a writ of habeas corpus to E. B. Hartman, former San Bernardino chiropractor, who contended he was illegally held in San Bernardino jail. The court ordered Hartman, who has been at liberty on $200 bond, pending hearing, to serve the remaining ninety days of his jail term. Hartman, convicted on two charges of violating the State Medical Act, carried his fight for freedom from the Justice Court conviction through the Superior, Appellate, and Supreme courts. Two appeals to the Supreme Court of his conviction were denied. In his petition for a writ, Hartman alleged that one of two charges on which he was convicted was unconstitutional. He had served ninety days of his sentence of 180 days when he filed the petition for a writ last March and was released pending the hearing. In January, this year, Hartman was convicted by a jury in San Bernardino township court for using the term 'Dr.' before his name without also identifying himself as a chiropractor and also for practicing medicine without a license. Each count brought a sentence of 180 days, the terms to run concurrently. A year before, Hartman was convicted of similar charges and paid a fine of $180. Attorney Joseph Seymour of Riverside, who represented Hartman, contended that the conviction on the charge of practicing medicine without a license was unconstitutional because the verdict of the jury was not supported by law and evidence. Hartman has given notice to District Attorney Jerome B. Cavanaugh that he shall surrender and serve the term, as ordered by the Supreme Court." (San Bernardino *Sun*, October 2, 1937.) (Previous entries, July, September, November, 1935; January, March, April, 1936.) (See *Hartman* vs. *Board of Chiropractic Examiners*, 89 California Appellate Decisions, p. 100; *In re Hartman* for writ of habeas corpus, 83 California Appellate Decisions, p. 647.)

"Request that the State Medical Board investigate charges of Mrs. Kathleen Lewis that Dr. Cecil Reynolds hypnotized her was made yesterday by Superior Judge Joseph W. Vickers. Mrs. Lewis, dress manufacturer, was denied a new trial of the suit brought against her by Doctor Reynolds, as assignee for two hospitals, and another doctor, in which $537 judgment was entered against her. Doctor Reynolds sought $3,332. Her defense during the trial was that Doctor Reynolds hypnotized her into believing she was in a serious physical condition. 'In denying this motion for a new trial, I request the State Medical Board to make a thorough investigation of Mrs. Lewis' charges,' stated Judge Vickers." (Los Angeles *Examiner*, October 8, 1937.)

According to an article printed in the Los Angeles *Herald-Express*, October 11, 1937, the United States Supreme Court at Washington upheld the constitutionality of the California Medical Practice Act, when it denied a review sought by Arthur O. Borland, Ray A. Borland, and

(Continued in Front Advertising Section, Page 26)

† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.

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the smartest *container we know*

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For your great work use these great solutions. Use BAXTER'S when you need use intravenous injections. Finish your case and walk away chin up, smiling, with peace of mind that is priceless for Baxter's will do its part for you.

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BOARD OF MEDICAL EXAMINERS

(Continued from Front Advertising Section, Page 30)

illegal operation. . . . Mrs. Castellanos was reported to have told her sister she had been taken to the Oakland residence for the operation by another Pittsburg woman." (Pittsburg *Post-Dispatch*, September 23, 1937.)

"Doctors, dentists, and veterinarians must fill out all prescriptions for narcotics in their own handwriting from now on, according to Attorney-General U. S. Webb. His ruling was in an opinion requested by W. G. Walker, Chief of the Division of Narcotic Enforcement. Mr. Walker claimed many of those permitted to write prescriptions used typewriters to fill them out or had assistants do it and then sign their names." (San Francisco *News*, September 14, 1937.)

"Dr. Leo Eloesser, well-known San Francisco surgeon, . . . is giving up his practice and going to Spain to establish a field hospital behind the Loyalist lines. Before going he will endeavor to raise $50,000 for the proposed hospital from Pacific Coast physicians." (*Voice of the Federation*, San Francisco, September 23, 1937.)

"'Dr.' Gene Bolle, wanted here on grand theft and fictitious check charges, is being sought in Nevada today. Police of that state were asked to be on the lookout for the self-styled doctor, when Sheriff Walter B. Sellmer was advised that he had cashed a worthless $25 check in Reno. Bolle, former operator of a Texas 'Get Acquainted Club,' was married recently to Miss Aretta Lofthouse, San Anselmo. Miss Lofthouse, believed to be the fourth Mrs. Bolle, told officers that her husband left her, taking her automobile and several hundred dollars in cash. He also

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President

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Chief of Staff

FRANK SCHMIDT
Superintendent

left a trail of bad checks here, officers said." (Press dispatch dated San Rafael, September 15, printed in Oakland *Tribune*, September 15, 1937.)

"A salesman for an Oakland surgical instrument firm, charged with grand theft in the taking of a $250 microscope from the clinical laboratory of A. A. Sokel in the Roseberg Building, Santa Rosa, was arrested in Alturas on Friday. He is Louis Baliquette, thirty, of Redding, who also faces questioning in the theft of several physicians' kits from automobiles in Santa Rosa and Petaluma. . . ." (Healdsburg *Tribune*, September 4, 1937.)

"When Samuel D. Collins gave medical advice and treatment to two attractive women at his office at 954 South Vermont Avenue last August 13, he immediately realized that he was signing his own commitment ticket to jail. After he had treated Mrs. Agnes Davis for pneumonia and Mrs. Elizabeth Richards for sciatica, he learned that the former was an operative for the State Medical Board, and the latter a member of the city police force. He was arrested. Collins, a former licensed chiropractor, yesterday was prepared to go to trial before a jury in Municipal Judge Carns' court, on charges of violation of the State Medical Practice Act." (Los Angeles *Times*, September 15, 1937.)

"Dr. Louis LaVine, Los Gatos chiropractor, recently acquitted of violating the State Medical Act, today filed suit in the Superior Court (through his attorney, M. James McGranaghan, D.C.), alleging malicious prosecution by two Los Gatos physicians, a special agent of the State Board of Medical Examiners, and a Los Gatos couple. Doctor LaVine asked damages of $10,300 and costs of his suit. Named as defendants are Dr. R. E. Graun, Dr. William R. Harder, Thomas P. Hunter, Special Agent for the State Board of Medical Examiners; and Mr. and Mrs. C. C. Wallace. The chiropractor charges that the physicians entered into collusion with Mr. and Mrs. Wallace, falsely charging him with a criminal offense and that as a result of this, Hunter, with full knowledge of the collusion, placed him in custody. Doctor LaVine was arrested on complaint of the defendants, he says, and charged with a violation of the State Medical Act, in attempting to set the fractured arm of Frances Wallace and prescribe medicines for her without having a valid certificate. . . . Doctor LaVine alleges that his good name and reputation as a licensed chiropractor has been greatly injured and that he has suffered great anxiety and worry and that he was forced to spend $300 in defending himself. M. James McGranaghan is the attorney for the plaintiff (San Jose *News*, September 3, 1937). "In a counteraction of the malicious prosecution suit of Dr. Louis LaVine, Los Gatos chiropractor, Mr. and Mrs. C. O. Wallace of the same com-

(Continued on Next Page)

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IRON	12.5 parts per million
CALCIUM	173.3 parts per million
MAGNESIA	339.3 parts per million
SODIUM	365.0 parts per million
SILICA	93.0 parts per million
CHLORINE	38.3 parts per million
SULPHATE	16.1 parts per million
NITRATE	0 parts per million
PHOSPHATE	.7 parts per million
CARBONATE	1551.4 parts per million
TOTAL	2591.4 parts per million

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BOARD OF MEDICAL EXAMINERS

(Continued from Preceding Page)

munity yesterday brought an $8,625 damage suit against LaVine. The Wallaces allege that Doctor LaVine so carelessly, negligently, and unskillfully treated Mrs. Wallace for a fractured arm last February that the flesh of the arm became withered and the joints and tendons stiff. . . . In their suit the Wallaces assert that LaVine placed a cast upon the arm so tightly that it interfered with circulation and that he used an infra-red lamp upon it with such intensity as to make the arm wither. Mrs. Wallace asks $7,500 damages and $125 medical costs. Her husband asks $1,000 for the loss of the services of his wife. Their attorney is D. T. Jenkins." (San Jose *Mercury-Herald,* September 11, 1937.)

"Contempt proceedings brought against the Supervisors here by a dozen private physicians and surgeons were continued over today in Superior Court until October 4, with consent of all litigants concerned. This is the second contempt proceeding brought against the Supervisors for their policy in having made the facilities of the great Kern General Hospital available to the taxpayers that constructed it. The local doctors, initiating contempt proceedings against the Supervisors, allege that the Supervisors have admitted patients to the hospital contrary to the law that only indigents should be admitted. The Supervisors have defined an indigent person as one that possesses no property excepting the amount exempt under law from execution. . . ." (Bakersfield *Californian,* September 7, 1937.)

"Dr. Grover C. Talbott, 47-year-old San Jose chiropractor, who was to have appeared for hearing today on charges of performing an illegal operation on Mrs. Ray Stricklund, eighteen, of Palo Alto, was sentenced to Agnew State Hospital yesterday on an insanity complaint sworn to by his wife, Helen Talbott, who claimed that he had threatened to kill her and commit suicide." (Press dispatch, dated Palo Alto, September 17, printed in Redwood City *Tribune,* September 17, 1937.) (Previous entries, August and October, 1936.)

"A jury of her peers—twelve middle-aged women—today had flung open the gate which for five months has trapped Mrs. Laura Miner, thirty-six, within a prison of doubt. Until the twelve women filed into Superior Judge Arthur L. Mundo's courtroom late last night, Mrs. Miner stood charged with second-degree murder, manslaughter, and performing an illegal operation. Five minutes after the jury had seated themselves, she was a free woman. . . . Mrs. Miner, who had been accused of taking the life of Mrs. Loretta Hazel Rees, 21-year-old wife of a San Diego Navy man, was freed after the jury had deliberated six hours. Police detectives during the testimony of the trial, which lasted seven days, disclosed amazing details of a coast-wide illegal operations ring, which netted $3,000 a month profit in San Diego two years ago. . . ." (San Diego *Sun,* September 18, 1937.)

"Dr. Claude C. Long, under sentence of ten years for the abortion death of Mrs. Genevieve Arganbright, today appealed his conviction to the State Appellate Court. Doctor Long cited nineteen grounds in the appeal, including the contentions that the jury which heard his case had received evidence out of the courtroom and was guilty of misconduct. Doctor Long is free on $20,000 bail." (San Francisco *News,* September 21, 1937.)

"Henry E. Bruckmann, forty-five, 537 Twenty-eighth Street, Oakland, was arrested yesterday for alleged violation of the State Chiropractic Act." (San Francisco *Chronicle,* September 15, 1937.)

(Continued on Page 38)

CANNED FOODS IN THE CONTROL OF LATENT AVITAMINOSIS C

● The identification of cevitamic acid (l-ascorbic acid) as vitamin C served as a direct stimulus for the intensive study of the multiple problems involved in determining the human requirement for this factor. As a result of much extensive work, there have been developed three methods for estimating the intake or store of vitamin C in the body.

The "retention or saturation" test is carried out by administering a massive dose of vitamin C and determining the amount excreted in the urine in a given time (1).

As a second method, the daily excretion of vitamin C in the urine is considered indicative of adequacy of the intake (2).

A third method is the determination of the amount of vitamin C in the blood plasma or serum (3).

These tests have been combined in balance studies and may serve as valuable checks in the diagnosis of latent scurvy, when used separately or in conjunction with the less specific capillary resistance test (4).

Evidence is accumulating from the application of these tests which confirms the older view that acute cases of scurvy are rare in this country. However, this evidence does indicate rather wide occurrence of the subclinical forms of scurvy (5).

Correction of this condition is largely a matter of modification of the diet to include more liberal quantities of the fruits and vegetables which are known to be good sources of vitamin C. Recent reports indicate that vitamin C in such fruits and vegetables is afforded a good degree of protection during modern canning operations (6).

Since they are available at all seasons on practically every American market, these canned foods afford a valuable and economical means of controlling latent avitaminosis C.

AMERICAN CAN COMPANY

230 Park Avenue, New York City

(1) 1935. The Lancet 228-I, 71
(2) 1936. Am. J. Med. Sci., 191, 319
(3) 1935. Proc. Soc. Exper. Biol. & Med., 32, 1930
(4) 1933. J. Lab. & Clin. Med. 18, 484
(5) 1937. The Avitaminoses Eddy and Dahldorff William and Wilkins Baltimore
(6) 1936. J. Nutr. 12, 405
1936. Ibid. 11,383
1935. Am. J. Pub. Health 25, 1340

This is the thirtieth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

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The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

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THE LONDON LANCET says: "There are two spots in the world with the most equable climate. One is Assuan, Egypt, the other is a little town in the foothills of the Santa Cruz Mountains in California, called Los Gatos."

Rates, Information and Booklet on Request

BOARD OF MEDICAL EXAMINERS

(Continued from Page 36)

"W. C. Fields, screen comedian, had filed in the Riverside Superior Court today a notice of intention to appeal a $12,000 judgment for medical fees awarded Dr. Jesse (I.) Citron of Hemet, California, for twenty-five days' care of the actor during his illness. The notice was contained in an extension of time stipulation, giving the actor until October 1 in which to file a bill of exceptions. . . ." (Los Angeles *Herald-Express,* September 18, 1937.)

"A blond young 'doctor' who has been visiting Oakland homes, ordering housewives to submit to a physical examination because of an epidemic sweeping the city, was being sought today by police. Authorities at Alameda County Hospital asked police to search for the self-styled 'physician, after they had received telephone calls from six puzzled women, who demanded to know why they had to be examined. Each reported that while they were at the telephone, the 'doctor' had disappeared. Police said each of the women who complained to the authorities was young, pretty, and healthy." (Oakland *Post-Inquirer,* September 18, 1937.)

Large Seizures of Unfit Food and Drugs.—Federal authorities were active during the summer rounding up food products carelessly packed and handled, and of drug products, the current report of the Food and Drug Administration indicates.

Drug Products Seized.—Seizures of drug products involved 220 cans of impure anesthetic ether, two cylinders of impure nitrous oxid (laughing gas), two glandular preparations ("Pituestrin" and "Pituipost") below the strength claimed for them, ninety-six ampoules of sodium phenobarbital, unsterile, and 196 packages of gauze bandage, also unsterile although labeled "sterilized," "Glover's Imperial

(Continued on Page 41)

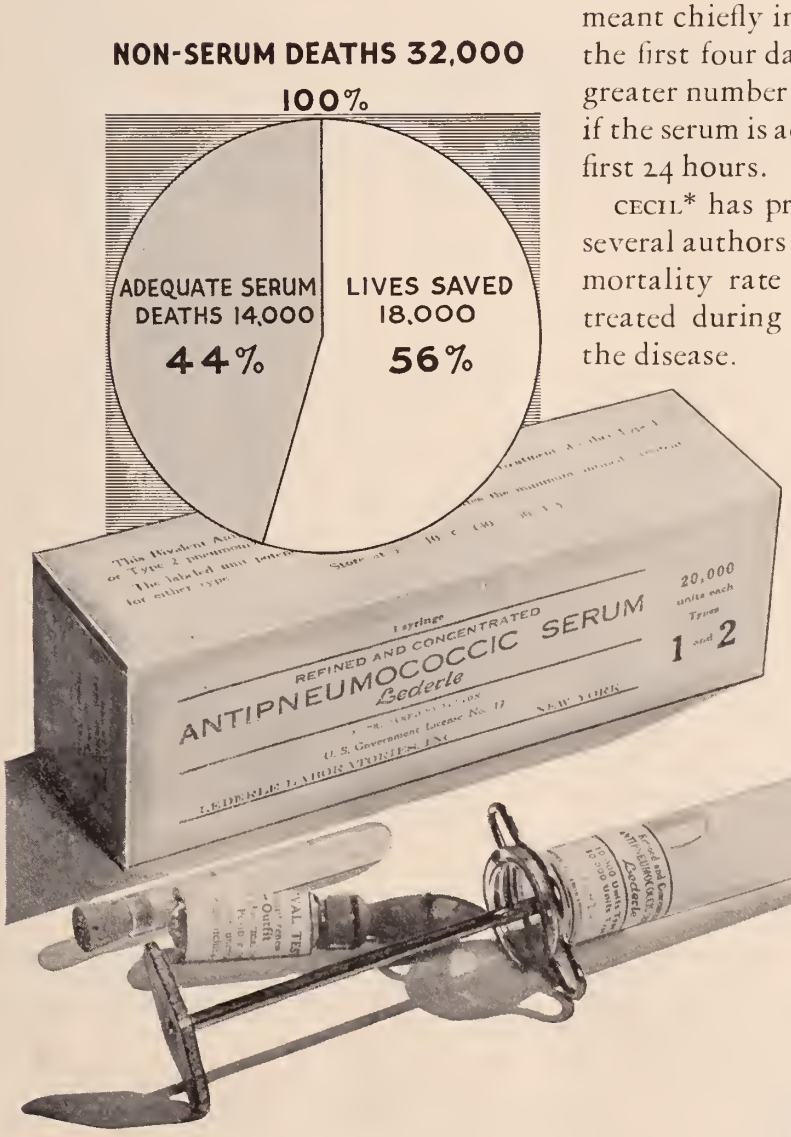
Serum therapy will save more than half of those who die from PNEUMOCOCCUS LOBAR PNEUMONIAS

Type 1 and Type 2

IT IS ESTIMATED that Type 1 and Type 2 Pneumonias account for at least 89,000 cases each year. Without serum, 32,000 will die. With adequate serum treatment only 14,000 will die, a saving of approximately 18,000 lives annually.

By adequate serum treatment is meant chiefly intensive dosage during the first four days of illness. An even greater number of lives may be saved if the serum is administered during the first 24 hours.

CECIL* has presented the reports of several authors which show only a 5% mortality rate for 160 Type 1 cases treated during the first 24 hours of the disease.



*CECIL, RUSSELL L.: J. A. M. A., Vol. 108, No. 9, February 27, 1937.

Lederle's "Directory of Pneumonia Typing Stations" will acquaint physicians with the nearest typing facilities in their localities. A copy of the booklet will be sent upon request to:

LEDERLE LABORATORIES, INC.
30 ROCKEFELLER PLAZA
NEW YORK, N. Y.

San Francisco: 450 Sutter Street
Las Angeles: 337 Central Avenue
Lederle Laboratories Depot,
1216 S. W. Stark Street, Portland, Oregon

Helping the patient who cannot sleep

● The use of sedatives is not always necessary—nor always advisable. However, there are many cases where the use of a safe sedative will often prove helpful. This is particularly true during serious illness or before surgical procedures where sleep is essential to conserve the physical resources of the body.

In the selection of a sedative or hypnotic due consideration must be given to its safety, its therapeutic benefits and its freedom from undesirable after effects.

IPRAL CALCIUM has long been used as a safe sedative and hypnotic. It is readily absorbed, effective in small dosage and rapidly eliminated, producing a sound, restful sleep from which the patient awakens calm and generally refreshed. In the usual therapeutic doses no untoward systemic by-effects have been reported. Undesirable cumulative effect may be avoided by proper regulation of the dosage.

IPRAL CALCIUM (calcium ethylisopropylbarbiturate) is supplied in 2-gr. tablets and in powder form for use as a sedative and hypnotic.

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Poland Water

PURE NATURAL

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(Continued from Page 38)

Laxative Pills for Dogs and Cats," labeled "Calomel 75 per cent" but found to contain less than 5 per cent calomel, and the following patent medicines, violating the law because of claims falsely and fraudulently made for the disease conditions indicated here:

"Anbesol," falsely represented as an antiseptic, for the treatment of abscesses, inflammation, fever sores, and stomatitis; "Anti-Pain Liniment" for neuralgic pains, rheumatism, pains in side, chest, or back, sore throat and bronchial affections; "Athlo Ointment" for soreness, swelling, inflammation, stiffness, neuralgic pain, sore throat, and spasmodic croup; "Athlo Tablets" for indigestion, liver disorders, and general debility; "Bevill's Lotion" for ringworm, eczema, skin troubles, and corns:

"Burton's Relief," for rheumatism, pellagra, and eczema; "Cas-Tro-Ma," for biliousness, stomach troubles, indigestion, high blood pressure and rheumatism; "Clydesdale Ointment," for piles, ulcers, old sores, skin troubles, corns, bunions, cuts, rheumatism, croup, and sore throat; "Cozzin's New Formula for Asthma," for asthma, hay fever, and nasal catarrh; "Erickson's Eczema Salve," for eczema; "J. L. Filkins Wonderful Wintergreen," for rheumatism, lumbago, sciatica, neuralgia, neuritis, and gout; "Grange Poke Root Compound," for ailments of cows; "Knox-All Septi-Knox Tablets," for coccidiosis, sour croup, poor appetite, and constipation in chicks; "M-C Worm Powder" (also labeled "Fox Vermifuge") for worms in foxes.

"Q. E. D. Mineral Water," for open wounds, cuts, bruises, burns, colds, and catarrh; "Dr. Platt's Rinex Prescription," for hay fever, asthma, catarrh, and head colds; "Si-Noze," for sinus, hay fever, and catarrhal or nasal infections; and "Zomogo Oil" for pellagra, tuberculosis, asthma, rheumatism, arthritis, influenza, Bright's disease, dropsy, typhoid fever, smallpox, diabetes, deafness, earache, catarrh, headache, cancer pyorrhea, toothache, blood poison, quinsy, diphtheria, and acute indigestion.

Ariphron said, "Without health life is not life, life is lifeless."

Proteins Hold Key to Resistance of Some Individuals.—The long-sought explanation of man's immunity to disease, the reason why one person catches pneumonia but another does not, or one dies and another recovers, was partly cleared up in Wilmington, Delaware, October 15, in discoveries with the ultracentrifuge described by Dr. The Svedberg of the University of Upsala, Sweden.

The immunity is connected with proteins. The ultracentrifuge has disclosed the structure of protein molecules and some of their rôles in immunity.

Received Nobel Prize

For perfecting the ultracentrifuge, Doctor Svendberg received the Nobel prize. He explained its workings in an address at the dedication of a new chemical laboratory of the University of Delaware.

The device is a whirling machine built for almost inconceivable speeds. Centrifugal force is nearly a million times the pull of gravitation. A cubic inch of milk, under this Svedberg pull, would weigh seven or eight tons.

Svedberg's ultracentrifuge has a small hole capable of holding about a thimbleful of liquid. When the top is spinning, the particles of the liquid, under a weight of several tons of artificial gravitation, begin to settle. Lighter particles sink part way like fine dirt in water. Even single molecules act like individual particles.

Molecules Band Together

Although the single molecules are far too small to be visible under a microscope, the billions of them which band together can be seen and analyzed.

In this way the protein molecules in the serum used to immunize human beings against pneumonia have been separated and examined.

Horse serum is the material commonly used to fight pneumonia. The immunizing part of this serum is a protein known as globulin.

Doctor Svedberg's centrifuge shows pneumonia immunity is carried by certain of these globulin proteins of unusual and gigantic size. These immunizing horse pro-

(Continued on Next Page)

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All Owl Stores have modern and fully equipped pharmaceutical departments.

(Continued from Preceding Page)

tein molecules are four times as heavy as the similar globulin molecules in human blood.

Rabbit Blood Factor

Because of this great difference in size, medical scientists have thought it might be possible to discover in the blood of some other animal a protein molecule about the size of man's and possessing immunity against pneumonia like the horse serum. It was suspected rabbit blood would do this.

The ultracentrifuge has confirmed this suspicion.

The immunizing substances are called antibodies. What they are is not known.

Man normally has antibodies of his own. These human ones are attached to protein molecules and increase in number when an animal serum is injected.

The ultracentrifuge shows that protein molecules are the most gigantic in nature.

All these gigantic protein molecules have the ability to break up and recombine according to needs of the living tissues of which they are a part.

"Life is not possible," said Doctor Svendberg, "without these substances, because no other material lends itself to the manifold performances here required. Accordingly our bodily welfare is highly dependent on our knowledge of the constitution, size, and architecture of the protein molecules."

Viruses Plague Mankind

He pointed out some of the worst human diseases are caused by viruses, and the ultracentrifuge has shown some viruses are apparently only gigantic protein molecules.

"Remembering," he added, "that such hard-fought illnesses as yellow fever, infantile paralysis, foot and mouth disease, influenza, and possible cancer, are virus diseases, it is obvious we may expect soon to discover powerful weapons to fight illness and death through work along these lines."

The ultracentrifuge, he explained, is a new diagnostic instrument for medicine. In a study of chicken cancer, he said the ultracentrifuge has already disclosed in blood the presence of strange proteins which may prove important in understanding cancer.

Method of Securing Blood for Analysis.—Abrahamson states that the difficulties encountered in securing blood for analysis may be obviated by pricking the finger with a lancet and letting the blood drop onto a petrolatum block with a depression on it. Slight pressure proximal to the wound or a rubber band placed round the finger will produce free flow, and as much as one cubic centimeter of blood may be obtained readily. The blood can then be drawn up into the pipet. The blood will not clot on the petrolatum in the short time necessary for collection. A muffin tin, consisting of six depressions in a tin plate, is used in making the petrolatum blocks. The depressions are filled with melted petrolatum and then set aside to cool. The contraction of the paraffin in cooling will produce a smooth depressed surface that serves admirably for the collection of blood.—*Science.*

Mother Nature Knows Best.* — A great many folks are forgetting that there are vitamins in strawberries and cream as well as in spinach and cod-liver oil. They are forgetting that it is pleasant to do most of the things that will make us well and strong. They will tell you that you ought to sleep with your bedroom window open. Well, that is a good idea, except for the "ought." Why, I want to sleep with it open. It makes the air so fresh and invigorating. They say that we people who live indoors ought to get out in the sunlight and play games of some sort. Well, I want to do that so badly on a fine spring morning that I have to get a club and beat my car over the back to make

(Continued on Page 44)

* By Thurman B. Rice, M. D., Professor of Bacteriology and Public Health, Indiana University School of Medicine.

Open Sesame!

Certain sales and advertising campaigns, when ingeniously planned, succeed. Others, hastily conceived, fail entirely, or fall far short of their full possibilities.

Consequently, every progressive business man is forever seeking some magic formula that will permit him to break through the guarded *sales resistance* of his prospects.

Advertising literature, such as brochures, catalogues, broadsides, folders, etc., are effective mediums, when once confidence in the firm advertising has been established. But until then, a more intimate and subtle means of introduction is suggested—namely, an external house organ.

A number of sales promotion executives, after exhaustive surveys, decided on the house organ as the initial printed piece of their advertising campaign, and gave the following reasons for their decision:

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As an adjuvant in many hepatic and gastric affections, Vichy Celestins has long been prescribed by physicians the world over.

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VICHY CÉLESTINS

THE WORLD'S MOST FAMOUS NATURAL STILL ALKALINE WATER

(Continued from Page 42)

it take me past the golf course. Sunlight, fresh air, play, entertainment, good food, and all of these things are good for us, and they are a lot of fun besides. Probably that's the main reason they are good for us. I wish we could all have more of them.

Someone has arranged a lot of health "chores" for the children to learn to observe. Of all the words to choose for the name of something—"chores"! Who likes to do chores? We are told to brush our teeth. It is a chore and, therefore, supposedly an unpleasant task. Not at all. Brushing your teeth makes your mouth feel so good that it is a real privilege. Drinking milk is another chore. Why, I like milk. I wish I had a glass of cold milk right now. Making a chore of drinking milk is going to do more harm than good, because it is going to set many a child against it. We ought, they say, to eat certain foods because they contain vitamins. Spinach and carrots and cod-liver oil are all very fine—if you like them. But a lot of us do not like them. Then what? Are we doomed to suffer the torments of avitaminosis? Not at all. We will eat something else that we like that is just as good. Milk is rich in vitamins. Drinking milk is no chore for a hungry calf or a hungry baby. It is a privilege. But if you do not like milk, you might ask yourself how the cow got all of her vitamins to put into the milk. She must have got them from soaking up a lot of sunlight and living on natural foods. Anyway, she did not get them by drinking milk. We can get them the same way. It is not necessary for us to torture ourselves by feeling that we must eat some particular food that the health cranks advocate.

How long has it been since we were told that the banana was really not fit to eat? Why, there are millions of people living in the tropics who practically subsist upon the banana. Indeed it is the only fruit that will even fairly well serve as an exclusive article of diet. It is now known that bananas, provided they are neither green nor rotten, can be fed even to young babies. In fact, in a certain disease of children—celiac disease—the best medicine or diet that has been devised is an exclusive banana diet. Now as a matter of fact, I knew well enough, even when a small boy, that bananas were mighty good food. One time when just a little fellow I got into the family supply and ate fourteen at one sitting. I ate the rest of my meals standing up for a couple of days, but it was not the bananas that hurt me.

Ice cream used to be considered as being a knick-knack of very questionable standing as a healthful food. Now every hospital that can afford it serves ice cream at least once a day, and many hospitals for children serve it to the undernourished patients three or four times, or as often as they will take it. Of course, it is good food; why not? Milk, sugar, egg, cornstarch, and a dash of flavoring! It could not be anything but good food, so long as the ingredients are not spoiled—and freezing is the best way to keep them from spoiling.

Candy and pastry, even, are excellent foods if eaten in such a way that they do not spoil the appetite for regular meals, but other foods are subject to the same limitations. A nice juicy beefsteak is mighty fine, but it must not be eaten in the middle of the morning, as candy often is since it is so easy to get. If you are fagged and tired and want something to pick you up—in a harmless sort of way—try a piece of milk chocolate or a slice of bread and butter. It is digested with the least effort and is very rapidly assimilated. It is really good food when used properly, and fits that sweet tooth to a T.

In winter we like heavy foods, which are what we need at that time. As spring comes, we begin to yearn for fresh foods which have been rather scarce during the long winter. We need vitamins, and the body knows it perfectly well and craves them. In summer we want lighter, more easily digested things, and they are certainly better.

It is hard for some folks to understand that Mother Nature is no fool. They want to rush in and tell the Old Girl how to run things, though she has been on the job for no one knows how long and not done so badly at that. She has developed in us the various senses, taste, smell, sight, and touch by which we may test the desirability of food. She has given us appetite which—unless it has been abused—is probably the best guide we have. The fact that a food is good is the best evidence that it is good for us.

(Continued on Page 46)

Announcing the Acceptance of

PROPADRIN HYDROCHLORIDE

by the Council on Pharmacy and Chemistry

PROPADRIN HYDROCHLORIDE is a bronchodilator and local vasoconstrictor—a synthetic compound with pharmacological properties similar to ephedrine and epinephrine.

Propadrin Hydrochloride seldom produces the side-effects of nervousness, insomnia, motor-restlessness and nausea. Black, in a study of 131 cases in which Propadrin Hydrochloride was employed, stated "that these symptoms, so common after the use of ephedrine, were seen in only 3 patients . . . None developed insomnia, even after several doses of 48 mgm. each at three-hour intervals." This comparative freedom from side-effects eliminates in the majority of cases the necessity of simultaneously administering sedatives.

The topical application of Propadrin Hydrochloride produces prompt and prolonged constriction of engorged mucous membranes. Oral administration usually affords relief from the symptoms of seasonal and perennial hay fever, and in asthma of allergic type.

Propadrin Hydrochloride (phenyl-propanol-amine hydrochloride, S & D) is supplied in three convenient dosage forms:

Solution Propadrin Hydrochloride, 1%, in one-ounce bottles.

Capsules Propadrin Hydrochloride, ⅜ gr., in bottles of 25 and 500.

Nasal Jelly Propadrin Hydrochloride, 0.66%, in one-half ounce collapsible tubes.

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FOR DISEASES OF THE CHEST

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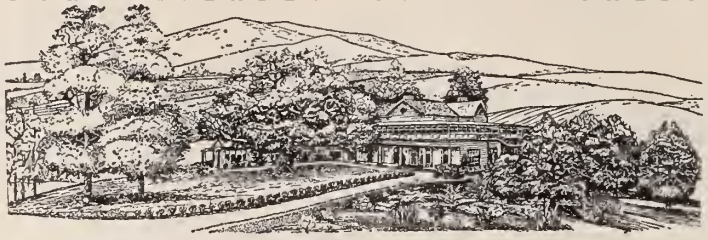

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Psychiatry

(Continued from Page 44)

The best health rule that I know is the one that advises us to forget at least nine-tenths of the other health rules and just live naturally.

Poliomyelitis (Infantile Paralysis).—There are few among the many emergencies physicians meet in their daily work that can tax their resourcefulness and patience so greatly as poliomyelitis, or so greatly awaken their sympathy or so add to the mental strain all conscientious physicians feel when a patient's illness is serious.

Poliomyelitis is decidedly a disease of warm weather. While cases occur in all seasons, they begin to be reported with invariable regularity and in greatly increased numbers in late summer and early fall; of 3,960 cases reported in Ohio since 1926, only 294 occurred before July 1. The peak of incidence usually is in mid-September. However, it is a rare disease in warm climates, seemingly preferring those where the seasonal changes are extreme.

The scattered cases during an outbreak show that, as with all communicable diseases, susceptibility to the virus plays a rôle as important as does the presence of a sufficiently virulent infecting agent, so that even in the severest outbreaks, the incidence of the disease rarely exceeds two cases per one thousand population, and it is estimated that 70 to 80 per cent, or possibly even a higher count, present merely the aspect of an acute generalized infection without sign of central nervous system injury, because either the virus never has reached the site where its usual damage is wrought, or, if so, the damage done is slight in extent and fleeting in duration. These are the dangerous cases in a community, not the frankly paralyzed ones; these are known and can be avoided. In relation to this, Dr. George Draper states, "Little has been added to our knowledge of the epidemiology of poliomyelitis since Wickham published his classical studies on the subject of 1905. All his observations have been confirmed by subsequent students of epidemics in various parts of the world, and all have come to accept 'human contact,' direct or indirect, as the means of transmission. Experimental studies have demonstrated the virus in the nasal and buccal secretions and in the intestinal content, not only of the paralyzed but of the so-called abortive or nonparalyzed cases. Besides these, healthy individuals who have been intimately associated with cases, have been shown to harbor the virus.

In view of these facts, it is perhaps easier to comprehend some of the peculiar lack of relationship between cases in a given community than it would be otherwise. The unrecognized, mild nonparalytic case and the healthy carrier are perhaps incarnations of the ancient conception of 'plague stalking the land.'"

"One of the difficulties encountered in the study of this disease," says Dr. S. D. Kramer of the Harvard Medical School, "has been due to the general impression that poliomyelitis is unrecognizable in the absence of paralysis, and this impression still persists, unfortunately, in many quarters at the present day." He gives the following description of the preparalytic stage and states that these signs and symptoms occur with such marked regularity as to deserve a place on the list of recognizable syndromes. "A child is taken suddenly ill in late summer or early fall. The symptoms first to appear are headache, some gastro-intestinal upset, and mild fever. Although the gastro-intestinal symptoms are fairly constant, they are not striking. The child complains of epigastric distress, some nausea, and usually vomits once or twice. The headache appears early, is frontal in character and persistent. The temperature, although showing occasional variations, seldom exceeds 103 degrees Fahrenheit. Many children complain of pain or stiffness in the back of the neck."

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(County society secretaries are requested to promptly notify "California and Western Medicine" when changes are indicated in their roster information.)

Alameda County Medical Association
2404 Broadway, Oakland
President, H. Gordon MacLean, 230 Grand Avenue, Oakland.
Secretary, Gertrude Moore, 2404 Broadway, Oakland.
Meeting, *Third Monday, 8:15 p. m., Hunter Hall, Oakland.*

Butte County Medical Society
President, John H. White, 315 Wall Street, Chico.
Secretary, J. O. Chiapella, 131 Broadway, Chico.
Meeting, *Second Thursday.*

Contra Costa County Medical Society
President, Clara H. Spalding, 331 Eighth Street, Richmond.
Secretary, Thomas J. Dozier, 202 G Street, Antioch.
Meeting, *Second Tuesday, 8 p. m.*

Fresno County Medical Society
President, J. M. Frawley, T. W. Patterson Building, Fresno.
Secretary, O. B. Doyle, Bank of America Building, Fresno.
Meeting, *First Tuesday, University-Sequoia Club, Fresno.*

Humboldt County Medical Society
President, Allan R. Watson, 350 E Street, Eureka.
Secretary, Lawrence A. Wing, Fifth and F Streets, Eureka.
Meeting, *First Thursday.*

Imperial County Medical Society
President, Floyd A. Burger, Box 193, El Centro.
Secretary, Merritt C. Canfield, 204 Professional Building, El Centro.
Meeting, *Third Tuesday, 7 p. m., Barbara Worth Hotel, El Centro.*

Kern County Medical Society
President, H. R. McAllister, Professional Building, Taft.
Secretary, C. S. Compton, 428 C Street, Bakersfield.
Meeting, *Third Thursday, 8:30 p. m.*

Kings County Medical Society
President, P. K. Edmunds, Corcoran.
Secretary, William A. Johnstone, Hanford.
Meeting, *Second Monday, 8 p.m., Legion Hall, Hanford.*

Lassen-Plumas-Modoc County Medical Society
President, C. I. Burnett, Susanville.
Secretary, Fred J. Davis, Jr., Westwood.
Meeting, *On Call.*

Los Angeles County Medical Association
1925 Wilshire Boulevard, Los Angeles
President, John P. Nuttall, 203 Professional Building, Santa Monica.
Secretary, George D. Maner, 1925 Wilshire Boulevard, Los Angeles.
Meetings, *First and Third Thursdays. 1925 Wilshire Boulevard, Los Angeles.*

Marin County Medical Society
President, Anne L. Brady, Albert Building, San Rafael.
Secretary, Carl W. Clark, 510 B Street, San Rafael.
Meeting, *Fourth Thursday, 6:30 p. m., Marin Golf and Country Club.*

Mendocino-Lake County Medical Society
President, Thomas P. Hill, Lakeport.
Secretary, Charles A. Craig, Lakeport.
Meeting, *On Call.*

Merced County Medical Society
President, Max Brannon, Merced.
Secretary, Fred O. Lien, Shaffer Building, Merced.
Meeting, *Third Thursday, Hotel Tioga, Merced.*

Monterey County Medical Society
President, Garth Parker, 8 East Alisal Street, Salinas.
Secretary, Arthur L. Wessels, Salinas National Bank Building, Salinas.
Meeting, *First Thursday.*

Napa County Medical Society
President, Fred Heegler, Migliavacca Building, Napa.
Secretary, M. M. Booth, Bruck Building, St. Helena.
Meeting, *First Wednesday.*

Orange County Medical Society
President, Waldo S. Wehrly, 620 N. Main St., Santa Ana.
Secretary, Glenn Curtis, 323 So. Pomona Street, Brea.
Meeting, *First Tuesday, 8 p. m., Chapel of the Orange County Hospital, Orange.*

Placer County Medical Society
President, C. E. Lewis, 59 Lincoln Ave., Auburn.
Secretary, Robert A. Peers, Colfax.
Meeting, *At Call of President.*

Riverside County Medical Society
President, H. L. Ratliff, 3616 Main Street, Riverside.
Secretary, Thomas A. Card, 3616 Main Street, Riverside.
Meeting, *Second Monday, 8 p. m., Library, Riverside Community Hospital.*

Sacramento Society for Medical Improvement
President, Raymond M. Wallerius, 312 Physicians Building, Sacramento.
Secretary, Glenn E. Millar, 321 Physicians Building, Sacramento.
Meeting, *Third Tuesday, 8:30 p. m., Auditorium, Sacramento.*

San Benito County Medical Society
President, L. C. Hull, Hollister.
Secretary, L. E. Smith, Hollister.
Meeting, *At Call of President.*

San Bernardino County Medical Society
President, Delbert B. Williams, 401 North Eighth Street, Colton.
Secretary, A. E. Varden, Medico-Dental Building, San Bernardino.
Meeting, *First Tuesday, 8 p. m., San Bernardino County Charity Hospital.*

San Diego County Medical Society
Fourteenth Floor, Medico-Dental Building, 233 A Street, San Diego
President, S. J. McClendon, 2001 Fourth Street, San Diego.
Secretary, W. H. Newman, Medico-Dental Building, San Diego.
Meeting, *Second Tuesday, El Cortez Hotel.*

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2180 Washington Street, San Francisco
President, T. Henshaw Kelly, 490 Post Street, San Francisco.
Secretary, Stanley H. Mentzer, 2180 Washington Street, San Francisco.
Meetings, *Every Tuesday, 8:15 p. m., 2180 Washington Street, San Francisco.*

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President, John S. Blinn, 1101 Medico-Dental Building, Stockton.
Secretary, George H. Rohrbacher, Medico-Dental Building, Stockton.
Meeting, *First Thursday, 8:15 p. m., Medico-Dental Club Rooms, Stockton.*

San Luis Obispo County Medical Society
President, Charles R. Kennedy, Bank of America Building, Paso Robles.
Secretary, E. D. Anderson, 1120 Morro Street, San Luis Obispo.
Meeting, *Third Saturday, 6:30 p. m., Mulholland's Grill, San Luis Obispo.*

(Roster lists continued on advertising page 6)

San Mateo County Medical Society
President, Frank S. Gregory, 736 Main Street, Redwood City.
Secretary, J. Garwood Bridgman, 205 Third Avenue, San Mateo.
Meeting, *Fourth Wednesday, Benjamin Franklin Hotel, San Mateo.*

Santa Barbara County Medical Society
President, Irving Wills, 1421 State Building, Santa Barbara.
Secretary, William H. Eaton, 822 De la Guerra Terrace, Santa Barbara.
Meeting, *Second Monday, Cottage Hospital.*

Santa Clara County Medical Society
President, R. Stanley Kneeshaw, 404 Medico-Dental Building, San Jose.
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Meeting, *Third Wednesday, 8 p. m., Medico-Dental Building, San Jose.*

Santa Cruz County Medical Society
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Meeting, *Second Tuesday, 7:30 p. m., Hotel Rio del Mar, Aptos.*

Shasta County Medical Society
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Secretary, Leslie J. Seeley, 1432 York Street, Redding.
Meeting, *Second Monday.*

Siskiyou County Medical Society
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Secretary, J. B. McGuire, Mt. Shasta City
Meeting, *Second Sunday.*

Solano County Medical Society
President, H. Brownlie Perkins, 445 Georgia Street, Vallejo.
Secretary, John W. Green, Box 539, Vallejo.
Meeting, *Second Tuesday, 8 p. m., Casa de Vallejo Hotel, Vallejo.*

Sonoma County Medical Society
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Meeting, *Second Thursday.*

Stanislaus County Medical Society
President, Marion C. Collins, Turlock.
Secretary, Edwin F. Hagedorn, Box 834, Modesto.
Meeting, *Second Friday.*

Tehama County Medical Society
President, Donald E. Thompson, Red Bluff.
Secretary, F. J. Bailey, Red Bluff.
Meeting, *At Call of President.*

Tulare County Medical Society
President, J. C. McClure, Lindsay.
Secretary, Karl F. Weiss, Security First National Bank Building, Visalia.
Meeting, *Sunday Evening once a month.*

Ventura County Medical Society
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Secretary, A. A. Morrison, 625 Main Street, Santa Paula.
Meeting, *Second Tuesday, Ventura County Country Club.*

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Renal Glycosuria.—In the opinion of Munch-Petersen, the hypothesis of cerebral origin of renal glycosuria is supported by the fact that renal glycosuria is most often combined with an increased dextrose content in the spinal fluid and that the sugar content of the spinal fluid in renal glycosuria reacts in a manner characteristic in dysfunction of the subthalamus region. Further, in most of the cases of renal glycosuria examined by him there were organic disorders in the central nervous system.—*Hospitalstidende.*

Use of "Benzedrine Inhaler" for Children.—Vollmer (Arch. Otolaryng., 26:91, July, 1937) treated with "Benzedrine Inhaler" a series of seventy-five children exhibiting rhinological symptoms due to infection or allergy. The ages varied from one to twelve years.

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In no case were any ill effects noted, such as headache, sleeplessness, restlessness or gastro-intestinal disturbance. It is thus concluded that "Benzedrine Inhaler" can be satisfactorily employed with young children for the relief of nasal symptoms due to infectious or allergic edema.

Sulfanilamide Must Be Used with Care. — Tarbell warns that when sulfanilamide is being used the patient must follow the physician's directions explicitly. The author has had a patient—treated for gonococcic infection—who disregarded his physician's instructions. He was instructed after the third day to reduce the tablets (0.3 gram) to three in twenty-four hours for four or five days more, and he was not seen again until seven days had elapsed, when he was found in bed and very sick. His temperature was 104.2 degrees Fahrenheit, pulse 120, respiration 30, he was trembling, cyanosed, coughing a great deal, had had fifteen bowel movements that day and could not retain food without vomiting. He gave a history of disregarding the physician's directions and had taken 0.65 gram of sulfanilamide every six hours regularly for ten days. He had also taken a dose of magnesium sulfate. The author reports this case with the hope of stimulating some state board regulation in the sale of sulfanilamide and to discourage its indiscriminate sale by druggists.—*New Jersey Medical Society Journal.*

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The Progress of Cremation.—Fourteen countries were represented at the International Cremation Congress, which has been held in London. In welcoming the delegates the lord mayor referred to the growth of cremation, which, though one of the oldest forms of disposing of the dead, dates in its modern form in this country from 1874. Lord Horder, who was elected president of the congress, said that its primary purpose was to establish a permanent international federation. The cause of cremation in many countries still suffered from legal restrictions. Cremation offered the only practical alternative to the prevailing system of burial, which was wasteful of ground, pagan in its perpetuation of the fetish of the physical body, criminal in its slipshod methods of registration, whereby it was possible for a death certificate to be given without the physician having seen the body, offensive in subjecting the body to the revolting process of putrefaction, and menacing to public health in the danger of infection which clung to the soil. In this country, where every acre was precious, burial had become a luxury which we could not afford. To those who urged that cremation would give an impetus to crime he would point out that since the opening of the Woking crematorium upward of 100,000 persons had been cremated in this country, and in not one case had any suspicion of crime arisen.—*London Letter, Journal A. M. A.*

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BOOK REVIEWS

Books received for review are placed in the Library of the California Medical Association, in its central office at San Francisco. Book reviews are written by the Association Secretary.

BOOKS RECEIVED

Methods of Treatment. By Logan Clendening, M. D., Clinical Professor of Medicine, Medical Department of the University of Kansas; Attending Physician, University of Kansas Hospitals; Consulting Physician, Kansas City General Hospital; Physician to St. Luke's Hospital, Kansas City, Missouri. Sixth Edition. Cloth. Pp. 879, with illustrations. Price, $10. St. Louis: The C. V. Mosby Company, 1937.

The Management of Fractures, Dislocations, and Sprains. By John Albert Key, B.S., M.D., St. Louis, Missouri, Clinical Professor of Orthopedic Surgery, Washington University School of Medicine; Associate Surgeon, Barnes, Children's and Jewish Hospitals, and H. Earle Conwell, M.D., F.A.C.S., Birmingham, Alabama, Consulting Orthopedic Surgeon to the Tennessee Coal, Iron & Railroad Company, and the Orthopedic and Traumatic Services of the Employees' Hospital; Associate Orthopedic Surgeon to the American Cast Iron Pipe Company; Attending Orthopedic Surgeon to the Crippled Children's Hospital, St. Vincent's Hospital, South Highlands Hospital, Hillman Hospital, and Children's Hospital, Birmingham. Second Edition. Cloth. Pp. 1246, with illustrations. Price, $12.50. St. Louis: The C. V. Mosby Company, 1937.

Crippled Children. Their Treatment and Orthopedic Nursing. By Earl D. McBride, B.S., M.D., F.A.C.S., Assistant Professor of Orthopedic Surgery, University of Oklahoma, School of Medicine; Attending Orthopedic Surgeon to St. Anthony Hospital; Associate Orthopedic Surgeon to Oklahoma City General and Wesley Hospitals; Visiting Surgeon to W. J. Bryan School for Crippled Children; Chief of Staff to Reconstruction Hospital, Oklahoma City, in Collaboration with Winifred R. Sink, A.B., R.N., Educational Director, Grace Hospital School of Nursing, Detroit, Michigan; Formerly Head Nurse of James Whitcomb Riley Hospital of the Indiana University Group; Instructor of Nurses, Indiana University School of Nursing; Educational Director, General Hospital, Mansfield, Ohio. Second Edition. Cloth. Pp. 379, with illustrations. Price, $3.50. St. Louis: The C. V. Mosby Company, 1937.

Group Hospitalization. A Report of Experiences. A Report Prepared by the Bureau of Medical Economics, American Medical Association. Paper. Pp. 296. Chicago: The American Medical Association, 1937.

The Second National Conference on College Hygiene, Washington, D. C., December 28 to 31, 1936. Sponsored by The President's Committee of Fifty on College Hygiene, The National Health Council, The American Student Health Association. Proceedings. Cloth. Pp. 112. New York: National Tuberculosis Association, 1937.

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(Continued from Page 13)

Annual Report of the Board of Regents of the Smithsonian Institution. Showing the Operations, Expenditures, and Condition of the Institution for the Year ended June 30, 1936. Cloth. Pp. 446. Price, $1.50. Washington: United States Government Printing Office, 1937.

Twenty-Five Years of Health Progress. A study of the mortality experience among the Industrial policyholders of the Metropolitan Life Insurance Company, 1911 to 1935. By Louis I. Dublin, Ph.D., Third Vice-President and Statistician, and Alfred J. Lotka, D.Sc., Assistant Statistician, with the collaboration of the staff of the Statistical Bureau. Cloth. Pp. 611. New York: Metropolitan Life Insurance Company, 1937.

Orthodiascopy. An Analysis of Over Seventeen Hundred Orthodiascopic Examinations. By Chester M. Kurtz, M.D., F.A.C.P., Assistant Professor of Medicine, University of Wisconsin: Cardiologist to the State of Wisconsin General Hospital. Cloth. Pp. 247, with illustrations. Price, $3.50. New York: The Macmillan Company, 1937.

Arteriovenous Aneurysm. Abnormal Communications Between the Arterial and Venous Circulations. By Emile Holman, A. B., B. A. Oxon., M. D., Professor of Surgery, Stanford University Medical School; Surgeon in Chief, Lane and Stanford University Hospitals; Successively a Member also of the Surgical Staffs of Radcliffe Infirmary, Oxford, England; Children's Hospital, Baltimore; Johns Hopkins Hospital, Baltimore; Peter Bent Brigham Hospital, Boston; Lakeside Hospital, Cleveland; and Peiping Union Medical College, Peiping, China. Cloth. Pp. 244, with illustrations. Price, $5. New York: The Macmillan Company, 1937.

The Diagnosis and Treatment of Sexual Disorders in the Male and Female, Including Sterility and Impotence. By Max Huhner, M. D., Formerly Chief of Clinic, Genito-Urinary Department, Mount Sinai Hospital Dispensary; At-

(Continued on Page 17)

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BOOKS RECEIVED

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tending Genito-Urinary Surgeon, Bellevue Hospital, Out-Patient Department; Assistant Gynecologist, Mount Sinai Hospital Dispensary, New York City. Cloth. Pp. 490. Price, $5. Philadelphia: F. A. Davis Company, 1937.

The Cerebrospinal Fluid. By H. Houston Merritt, M.D., Assistant Professor of Neurology, Harvard Medical School; Director of the Cerebrospinal Fluid Laboratory, Boston City Hospital; and Frank Fremont-Smith, M.D., Formerly Assistant Professor of Neuropathology, Harvard Medical School; Formerly Director of the Cerebrospinal Fluid Laboratory, Boston City Hospital. With a Foreword by James B. Ayer, M.D. Cloth. Pp. 333, with 17 illustrations. Price, $5 net. Philadelphia: W. B. Saunders Company, 1937.

Manual of Clinical and Laboratory Technic. By Hiram B. Weiss, A.B., M.D., F.A.C.P., Associate Professor of Medicine, College of Medicine, University of Cincinnati, Cincinnati, Ohio; and Raphael Isaacs, A.M., M.D., F.A.C.P., Associate Professor of Medicine, Assistant Director of the Thomas Henry Simpson Memorial Institute for Medical Research, University of Michigan, Ann Arbor, Michigan. Fifth Edition, Reset. Cloth. Pp. 141. Price, $1.50 net. Philadelphia: W. B. Saunders Company, 1937.

Mental Therapy: Studies in Fifty Cases. By Louis S. London, M.D., Formerly Passed Assistant Surgeon (R) United States Public Health Service; Medical Officer United States Veterans' Bureau; Assistant Physician Central Islip State Hospital, Central Islip, New York, and Manhattan State Hospital, Wards Island, New York. Two volumes. Cloth. Pp. 774. Price, $12.50. New York: Covici Friede, 1937.

The History of the Acute Exanthemata. The Fitzpatrick Lectures for 1935 and 1936. Delivered before the Royal College of Physicians of London. By J. D. Rolleston, M.A., M.D., F.R.C.P., F.S.A., Medical Superintendent, Western Fever Hospital, London. Cloth. Pp. 114. Price, 15s. net. London: William Heinemann, Ltd., 1937.

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BOOK REVIEWS

The Management of Fractures, Dislocations, and Sprains. By John A. Key, B.S., M.D., and H. Earle Conwell, M.D. Second Edition. Pp. 1246. Price, $12.50. St. Louis: C. V. Mosby Company.

Practitioners and surgeons assuming the care of fractures and joint injuries will find this text to be a helpful reference. It reflects present-day methods and procedures that are recognized and approved. It is accurate and thorough in descriptive text. Consideration is given to the care and treatment of injury or damage to the soft parts that accompany and so often add serious complications to a fracture or dislocation. There are excellent chapters on head injuries, medico-legal factors. Compensation Boards' attitudes to fractures, fractures involving the hip and spine. The mechanics of fracture treatment is well described and illustrated.

All in all, this text will be recognized as a leading book on fractures and joint injuries.

Methods of Treatment. By Logan Clendening, M. D. Cloth. Pp. 879. Sixth Edition. Price, $10. St. Louis: C. V. Mosby Company.

The author has brought this very useful text up to date in this sixth edition. It presents detailed outline of all methods of treatment in internal medicine. It is specific in that it is accurately descriptive as to drugs, their exhibition, technique and diet, and the use of hydrotherapy and physiotherapy.

This book is of tremendous value to the internist because of its helpfulness in guiding him along the paths of good treatment. Frequent consultation with this text is bound to develop the doctor into a wise, competent prescriber for his patients.

Crippled Children: Their Treatment and Orthopedic Nursing. By Earl D. McBride, M.D., University of Oklahoma. Second Edition. Cloth. Pp. 379. Price, $3.50. St. Louis: C. V. Mosby Company.

This is a manual for nurses and those caring for crippled children. In a general way it covers the field of orthopedic nursing, but is lacking in that the presentation is general and superficial. It is more of an outline than a manual requiring that the nurse consult other references for more specific information and instruction.

Orthodiascopy. By Chester M. Kurtz, M.D., University of Wisconsin. Cloth. Pp. 247. Price, $3.50. New York: The Macmillan Company.

This monograph is based on over 1,700 orthodiascopic examinations of the heart. The relation of the size of the heart to body measurements is the basic of this manuscript and the principal theme. It is a thorough and systematic approach of the subject. Cardiologists and roentgenologists will find the author's results, technique, and findings most helpful.

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Arteriovenous Aneurysm. By Emile Holman, A.B., B.A., M.D., Stanford University. Cloth. Pp. 244. Price, $5. New York: The Macmillan Company, New York.

This surgical monograph is the author's manuscript that was awarded the 1930 Samuel D. Gross prize by the Philadelphia Academy of Surgery.

Doctor Holman presents in concise detail his many experiments leading to an acceptable technique for the correction of this circulatory abnormality.

The appendix contains a number of typical case histories, protocols of animal experimentation and a bibliography of 205 references to the literature. The entire monograph is a most satisfactory presentation and clear as to details, causes, circulatory symptoms, and treatment. It fully merits the Gross award.

The Thinking Body. By Mabel E. Todd, New York. Cloth. Pp. 314. Price, $4. New York: Paul B. Hoeber, Inc.

A study of balancing forces of dynamic man based upon the author's lectures at Teachers' College and thirty years

(Continued on Next Page)

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"Conservative Treatment of the Nasal Sinuses," N. Y. State Jr. Med., Jan. 15, 1937, by Harold Hays, M. D. "Sinusitis—Shall Treatment be Surgical or Non-Surgical," Eye, Ear, Nose and Throat Monthly, Sept., 1936, by Irving Voorhees, M. D.

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BOOK REVIEWS

(Continued from Preceding Page)

of study and research. Some of the theories are empirical, others have fairly proved background, and some are in accord with known physiological laws. The presentation is original and attractive. Well worth reading and thinking about.

Materia Medica, Pharmacology, Therapeutics and Prescription Writing. By Walter Arthur Bastedo, Ph.M., M.D., Sc.D., F.A.C.P., Consulting Physician, St. Luke's Hospital, New York, St. Vincent's Hospital, Staten Island, and the Staten Island Hospital; President, United States Pharmacopeial Convention, 1930-1940; Member of Revision Committee, United States Pharmacopeia. Formerly Curator of the New York Botanical Garden, Attending Physician, City Hospital, New York, Instructor in Pharmacology, Cornell University, Associate in Pharmacology and Therapeutics, and Assistant Clinical Professor of Medicine, Columbia University. Fourth Edition, Reset. Pp. 778, with 81 illustrations. Cloth. Price, $6.50 net. Philadelphia and London: W. B. Saunders Company, 1937.

This well-known text is enhanced in this fourth edition. New and approved drugs are included. It is a dependable guide for the practicing physician who does not depend upon proprietary preparations and who desires to reflect intelligence in prescribing.

The Business Side of Medical Practice. By Theodore Wiprud, Executive Secretary of the Medical Society of Milwaukee County; Lecturer in Medical Economics at the Marquette University School of Medicine. Pp. 177, with 21 illustrations. Cloth. Price, $2.50 net. Philadelphia and London: W. B. Saunders Company, 1937.

An excellent primer for the young physician entering practice. It would do no harm for older physicians to apply the advice given and they, too, will find this adviser worth while. A chapter might well be read at every county meeting.

The Diagnosis and Treatment of Sexual Disorders in the Male and Female. Max Huhner, M.D. Cloth. Pp. 490. Price, $5. Philadelphia: F. A. Davis Company.

A readable and full discussion of the subject that will be helpful to the practitioner and specialist.

Functional Activities of the Pancreas and Liver. By Charles W. McClure, M.D., Boston University School of Medicine. Illustrated. Cloth. Pp. 318. New York: Medical Authors Publishing Company.

A study of objective methods for the estimation of function levels in health and disease. Special chapters by Tage Christiansen, M.D., Copenhagen and A. W. Rowe, Ph.D. This monograph is a simple, clear and concise presentation of the author's studies and investigation. It should be helpful in making a differentiating diagnosis as to the functioning of the liver and pancreas.

Injection Treatment of Hernia. By C. O. Rice, M. D., University of Minnesota. Cloth. Pp. 266. Price, $4.50. Philadelphia: F. A. Davis Company.

A compilation of the factors related to hernia and injection treatment. Leaves much to be desired in the way of illustration and amplification of the text. Injection treatment is not as simple as represented, and is not a procedure to be undertaken unless one has gained an extended surgical experience.

The Hoover Policies. By Ray Lyman Wilbur, M.D., President, Stanford University, and Arthur Mastic Hyde, former Governor of Missouri. Cloth. Pp. 666. Price $3. New York: Charles Scribner's Sons.

The purposes of this volume is to present Hoover's principles and policies, both in philosophy of government and in action. Arranged under subject heads, supported by a full index, this book merits considerate reading. It is not a history, yet the graphic statement of policies and principles.

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(Continued on Page 22)

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BOOK REVIEWS

(Continued from Page 20)

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TWENTY-FIVE YEARS AGO

(Continued from Text Page 436)

first balmy days of spring. It is seasonal also in the individual, showing marked preference for the very young and the very old. . . .

Conference of State Secretaries.—One of the most important meetings since the reorganization of the American Medical Association at St. Paul in 1901 was the Conference of the Secretaries of State Societies, called by the Committee on Uniform Regulation of Membership at the Association headquarters, Chicago, October 23 and 24. This Committee was appointed in 1908, in accordance with a recommendation made in the Secretary's report for that year. . . .

BOARD OF MEDICAL EXAMINERS

(Continued from Text Page 436)

'In the face of opposition of special interests, efforts to improve the 1906 law have been unsuccessful, an adequate law has not been enacted and one measure of protection after another has been whittled away from pending bills. The bill that passed the Senate at its last session and which was pending in the House at adjournment has been shown long since of original provisions that would have protected the public against such tragedies as those resulting from this elixir.'" (San Francisco *Chronicle,* November 8, 1937.)

Said the Los Angeles *Daily News* of October 28, 1937, in an editorial headed "Slaughter by Elixir Calls for Drastic Remedial Measures": "It so happens that at a recent meeting of Los Angeles medical men, the use and value of sulfanilamide as a medication was discussed. In itself, the drug is a boon to mankind—and not harmful. Physicians estimate that more than 400,000 patients have been treated with it in the six or eight months it has been used, and the Los Angeles doctors were cheered at the results achieved. Their opinion of the drug's value has not changed, for the cause of the recent deaths is not the drug, but the solvent with which a manufacturer in the East mixed it. . . . The Food and Drug Administration fights an endless line of fly-by-night and crooked enterprises in this field. The Administration has no control whatever over certain dangerous products. Dinitrophenol, for instance, extremely hazardous unless taken under the direction of a physician, is beyond the reach of the food and drug authorities because it escapes the 1906 law's definition of a drug. It is a drug, of course, commonly used for 'reducing,' but it is not a 'substance used in the cure, mitigation, or prevention of disease.'"

A press dispatch dated Chicago, November 3, printed in the San Francisco *Examiner* of November 4, 1937, relates that an editorial in the current issue of the *Journal of the American Medical Association* "bitterly condemned the Federal food and drug laws" in connection with the deaths of some sixty-seven persons from the elixir of sulfanilamide. The editorial stated: "Surely there has been no blacker picture of the inadequacy of the food and drug laws or the lack of scientific decency in drug manufacture than

(Continued on Page 24)

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The National, State, and Local Tuberculosis Associations in the United States

BOARD OF MEDICAL EXAMINERS

(Continued from Page 22)

that illustrated by this tragic disaster. With the present inadequate laws, the (Food and Drug) Administration is as inefficiently armed as a hunter pursuing a tiger with a fly swatter.

"W. G. Campbell, Food and Drug Administrator (Washington, D. C.), wants the Federal Government empowered to prevent the marketing of dangerous drug mixtures such as sulfanilamide 'elixir.' He said, in an interview, that the $200 fine for first offenses against the Food and Drug Act was 'no deterrent at all' to a manufacturer. . . . Mr. Campbell said that the manufacturer should have known diethylene glycol was dangerous before he used it. . . . Criticism of the many courts consistently imposing light penalties for violation of the Food and Drug Act was implicit in his fiscal report on the Administration's activities. . . ." (San Francisco *News*, November 5, 1937.)

"Literally 'burned up' by fifteen reducing tablets which consumed bodily tissues, the body of Mrs. Ana Mullins, forty-two, awaited burial here today. Physicians staged a dramatic fight with death by packing Mrs. Mullins in ice." (Press dispatch, dated San Francisco, October 16, printed in the San Diego *Union*, October 17, 1937.) Investigators report the "reducing tablets" were dinitrophenol.

In an editorial printed in the Los Angeles *Daily News*, October 28, 1937, comment upon the inadequacy of the Federal statutes giving authority to the Food and Drug Administration to curb the manufacture and sale of dangerous drugs, appears the statement: "Forced to operate under an ancient statute passed by Congress in 1906, their (Food and Drug Administration's) power is slight. For violations

(Continued on Page 26)

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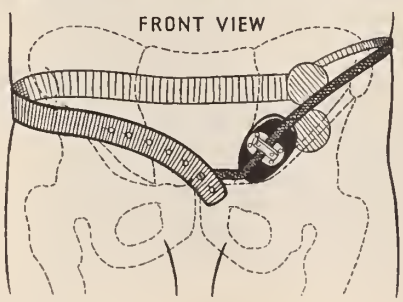

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(Continued from Page 24)

of the law, offenders frequently escape with fines of a few dollars, which they take with a smile and forget. . . . The Administration has no control whatever over certain dangerous products. . . . The only adequate step they (Congress) can take is to revamp completely the Pure Food and Drugs Act of 1906."

"Whether Mrs. Charlotte Strompl can establish legal grounds for a suit against Dr. O. M. Justice on the allegation that pills which he prescribed for weight reduction caused her to become blind, will be argued for the fifth time in the Santa Monica department of the Superior Court tomorrow. Attorneys for Doctor Justice, who is alleged to have advertised his treatment over the radio, have been successful in having the claim blocked on technical grounds on four successive occasions. . . . In her suit, which asks damages of $100,000, Mrs. Strompl sets forth 'that the use of the drug as a method of reducing the weight of human beings was well known among the medical profession of the community in which the defendant practiced as being dangerous to administer for the purpose of weight reduction.'" (Santa Monica *Outlook*, October 28, 1937.)

"While police officers and members of the District Attorney's staff are checking his recent activities 'Dr.' Roy C. (Arvel) Cain, forty-nine, self-styled minister, chiropractor, nature healer, tap dancer, dog fancier, and sign painter, rests in the county jail. . . . When they 'printed' him, the Berkeley police declare, they found he had served a term in Leavenworth Prison, and had also spent time as a guest of this State in San Quentin and Folsom. . . . Officers here, however, . . . said they are paying particular attention to the possibility he may have left a trail of worthless checks." (Stockton *Record*, November 4, 1937.) The

TO THE DOCTOR'S WIFE

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Investigation Department reports that on November 5 complaints were filed in Stockton charging Cain with petty theft and also with violation of Section 2141 of the Business and Professions Code. (Previous entry, November, 1937.)

"Dr. Samuel S. Bogle, member of one of Sonoma County's first families, was under indictment at Santa Rosa today on charges of grand theft and embezzlement of public funds. The 74-year-old physician recently resigned as head of the County Hospital after twenty-six years' service. . . . The doctor surrendered immediately, following return of the indictments, and was freed on $2,500 cash bail. . . . Doctor Bogle was widely known as a railroad physician and maintained a staff of several assistants." (San Francisco *Call-Bulletin*, November 6, 1937.)

"A youthful Burlingame physician, arrested after a month's investigation that he has annoyed young girls in the Burlingame Public Library, pleaded guilty yesterday before Police Judge R. L. Stone. The defendant, Dr. Paul F. Eid, thirty-one, was sentenced to ninety days in the county jail, plus a fine of $100. According to Police Captain John Hartnett, several girls had complained of Doctor Eid's actions in the basement reference room of the library." (San Francisco *Examiner*, November 4, 1937.)

"Denied a new trial, Dr. John E. Baker, former Hollywood Receiving Hospital police surgeon, was sentenced today to serve from one to ten years in San Quentin prison on his conviction on two counts of conspiracy and grand theft. The sentence, passed by Superior Judge Frank M. Smith, came when Defense Counsel Harold Judson withdrew Doctor Baker's application for probation and served notice of appeal. Withdrawal of the probation application left the court no alternative, Judge Smith said, than to pass

(Continued on Next Page)

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BOARD OF MEDICAL EXAMINERS

(Continued from Preceding Page)

sentence. . . . The doctor was convicted on an indictment charging him with having aided a 'fake accident ring' in efforts to defraud insurance companies by certifying that alleged 'victims' of automobile accidents had been injured." (Hollywood *Citizen-News*, November 4, 1937.) (Previous entries, July and September, 1927; December, 1928.)

"Dr. Frank A. Pearl, negro physician, second person to be tried in connection with a series of insurance frauds, was convicted yesterday by a jury in Superior Judge Frank M. Smith's court of soliciting two women to make a false accident report. He asked for permission to apply for probation, hearing on which was set for tomorrow." (Los Angeles *Times*, November 4, 1937.)

"Fourteen doctors and six attorneys, under indictment in an asserted conspiracy for 'ambulance chasing,' are scheduled to appear before Superior Judge Charles W. Fricke today to enter pleas. Following a two months' investigation by the Los Angeles County Grand Jury, instigated by the California State Bar Association, under supervision of Herbert Hallner, chief investigator, nearly fifty persons were indicted at different times. More than a score were accused of participating in 'fake accidents' in which insurance companies were losing nearly a million dollars a year. The doctors scheduled to appear for plea today charged with urging accident victims to have certain attorneys represent them in their claims, are: Dr. W. B. Humphrey, Dr. M. C. Cooley, Dr. A. L. Wallace, Dr. R. S. Whattaker, Dr. E. H. Anthony, Dr. John E. Porter, Dr. E. B. Liddell, Dr. G. O. McKeehan, Dr. C. D. Frederick, Dr. Roy E. Shipley, Dr. P. C. Lawyer, Dr. E. D. Abraham, Dr. F. A. Pearl, and Dr. John E. Baker. . . ." (Los Angeles *Herald and Express*, November 1, 1937.)

"Renewing efforts to determine cause of Eileen McDole's death Sunday after having been treated by an Indian herb doctor, Coroner F. A. Nance yesterday ordered a chemical analysis made of the 15-year-old Tujunga girl's vital organs. . . ." (Los Angeles *Daily News*, November 3, 1937.)

"Colusa doctors have been made solely responsible for the hospitalization of all patients, pay or indigent, at the Colusa Memorial Hospital in a decision reached by the Colusa County Board of Supervisors in an attempt to prevent further loss of revenue. . . . Making the doctors responsible for the cost, it is believed, will result in doubling the revenue and cutting the expenses by 50 per cent." (Press dispatch dated Colusa, October 21, and printed in the Sacramento *Bee*, October 21, 1937.)

"Mrs. Jane Wright, sixty-eight, of 1304 Fillmore Street, was under arrest today on charges of performing an illegal operation after Elizabeth Arguello, 23-year-old WPA seamstress, identified her from a hospital bed. . . . Police said the operation had been performed on a kitchen table." (San Francisco *Call-Bulletin*, October 22, 1937.) Complaint has also been issued charging violation of the Business and Professions Code.

"E. B. Hartman, former San Bernardino chiropractor, recently denied a writ of habeas corpus by the California Supreme Court, surrendered to Sheriff Emmett L. Shay yesterday to serve his unexpired county jail term. As Hartman was booked, two other charges, accusing him of violating the State Medical Practice Act, were filed against him. . . . The two new charges accuse Hartman of practicing medicine without a license. . . . The San Bernardino complaint . . . accuses Hartman of giving medical treatments to a woman last July. The woman was suffering

(Continued on Page 30)

One of a series of advertisements prepared and published by PARKE, DAVIS & CO. in behalf of the medical profession. This "See Your Doctor" campaign is running in the *Saturday Evening Post* and other leading magazines.

Bequest Forms: Unto the California Medical Association*

FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I hereby give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of $——— to be known as the ——— Gift, to be used and expended by said corporation for scientific, educational, or hospital purposes.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of $———, to be held as a fund, to be known as the [here insert name desired] Fund, the principal whereof shall from time to time be invested to the best advantage compatible with safety, and the income whereof shall be used and applied for scientific, educational, or hospital purposes.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR BEQUEST OF PERSONAL PROPERTY

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used and applied for scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California, to aid and further its scientific, educational, and hospital purposes, and to be known as the ——— Gift, the following described real property situate in the County of ———, State of California, and more particularly described as follows, to wit:

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used for and applied to the support and maintenance of scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

* These Bequest Forms were discussed editorially in CALIFORNIA AND WESTERN MEDICINE, for March, 1936, p. 145, and June, 1936, p. 460.

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BOARD OF MEDICAL EXAMINERS

(Continued from Page 28)

from cancer and died ten days after being admitted to the county hospital, said District Attorney Jerome B. Kavanaugh." (San Bernardino *Sun*, October 26, 1937.) (Previous entries, July, September, November, 1937; January, March, April, 1936.)

"If all the initiatives and referendum measures that have been titled by Attorney-General U. S. Webb should qualify for the November, 1938, election, voters will receive sample ballots large enough to use for table cloths and possibly bedspreads. The Attorney-General already has titled eighteen proposed initiatives and three referendum measures, with more to come. . . . M. James McGranaghan, a San Francisco chiropractor, has had titled a measure aimed at the medical profession. This would redefine the practice of medicine, provide penalties for unnecessary major surgery, require prescriptions to be written in English and 'create a conclusive presumption of unskillfulness if a surgeon has less than five hundred hours of surgical training or has participated in less than fifty major operations.' . . ." (Sacramento *Bee*, October 19, 1937.)

"The State Board of Prison Terms and Paroles today denied parole to R. L. Rankin, San Francisco, convicted in Los Angeles last year as the 'brains' of a coast-wide abortion chain. His term was fixed at ten years. Jesse C. Ross, accomplice, was also refused parole." (San Francisco *News*, November 8, 1937.)

"Mrs. Helen C. Talbot, wife of Grover Talbot, 47-year-old chiropractor confined at Agnew for observation after two arrests for alleged criminal operations here, today

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petitioned the Superior Court to be named her husband's guardian. Mrs. Talbot claims that he is incapable of managing his own affairs." (Press dispatch, dated San Jose, November 9, printed in the San Francisco *Examiner*, November 10, 1937.) (Previous entries, August and October, 1936.)

"Incorporation papers of the First Church of Food Chemistry, a religious and educational organization, particularly concerned with the healing arts and the prolongation of life, have been presented for filing by the Secretary of State. The headquarters will be in Los Angeles County, where the directors are headed by Martin W. Pretorius of Burbank." (Sacramento *Bee*, November 9, 1937.) Report indicates that in the *Journal of the American Medical Association*, May 17, 1930, under New Jersey Medical News, was published a list of illegal practitioners recently prosecuted by the Board of Medical Examiners of New Jersey. The first name in the list was said to have been Martin W. Pretorius of Atlantic City, who had conducted the "New Health Studio" and held himself out as a "food specialist" and naprapath.

Cyanosis from Sulfanilamide.—Cyanosis of varying degree has been observed in patients undergoing intensive treatment with sulfanilamide. This cyanosis has been attributed to the presence of methemoglobinemia or sulfhemoglobinemia. Marshall and Walzl have examined the blood from seven patients treated with sulfanilamide in an attempt to determine how far the oxygen carrying capacity of the blood is reduced in patients showing cyanosis. The oxygen carrying capacity was compared with the total iron pigment of blood. The conclusions drawn from the data are that clinical cyanosis may be unaccompanied by any decrease in the oxygen carrying capacity of the blood and may occur without the presence of nonfunctional iron pigment within the errors of the methods employed. In two cases the figures indicated nonfunctional iron pigment. This nonfunctional iron pigment appears to be mainly methemoglobin. The possibility of methemoglobin being present in small amounts in the blood samples from the other cases cannot be disproved by the data. An average of the figures for the five instances in which neither cyanosis nor a dark color of the blood was present makes it unlikely that more than traces of methemoglobin were present in these bloods. Methemoglobin as the cause of the cyanosis and dark color of the blood can be eliminated in these patients and also probably as the only cause in the other two cases. The authors cannot deny that sulfhemoglobin as well as methemoglobin may occur under certain conditions after administration of sulfanilamide, but it seems clear that these abnormal iron pigments supply by no means the only, and probably not the main, explanation of the cyanosis so frequently encountered in using the drug. —*Johns Hopkins Hospital Bulletin.*

Effects of Posture on Blood Pressure.—Wald and his associates determined the immediate (during the first minute) and the prolonged effect (after the first minute) on the arterial blood pressure in human subjects after the change from a recumbent to an upright position. Experiments on animals trying to determine the mechanisms of adjustments were also performed. On changing from the recumbent to the standing position the systolic pressure is from five to forty millimeters of mercury below the recumbent level about ten seconds after the change. There is a rapid recovery after this initial drop and after about thirty seconds many subjects have regained or passed the recumbent level. In some few cases the recovery is slower. Diastolic pressure usually rises slightly on standing. The same type of reaction is seen when the subjects are titled into the vertical posture, but the drop is greater and the recovery less. Prolonged quiet standing is a severe strain on the circulation, as shown by the frequency of fainting. Reflexes from the carotid sinuses and arch of the aorta are responsible (in part at least) for the reactions leading to the recovery of the pressure.—*American Heart Journal.*

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EDITOR . . . . . GEORGE H. KRESS

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Responsibility for Statements and Conclusions in Original Articles.—Authors are responsible for all statements, conclusions and methods of presenting their subjects. These may or may not be in harmony with the views of the editorial staff. It is aimed to permit authors to have as wide latitude as the general policy of the Journal and the demands on its space may permit. The right to reduce or reject any article is always reserved.

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Contributions—Length of Articles: Extra Costs.—Original articles should not exceed three and one-half pages in length. Authors who wish articles of greater length printed must pay extra costs involved. Illustrations in excess of amount allowed by the Council are also extra.

Leaflet Regarding Rules of Publication.—CALIFORNIA AND WESTERN MEDICINE has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

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EDITORIALS†

COUNTY MEDICAL ASSOCIATION BY-LAWS

For Assemblies, Rules of Procedure Are Necessary.—Whenever, from time to time, in order to attain certain ends, groups of men and women gather together, it is not long before rules of procedure, designed to promote orderly and proper consideration of matters under debate, are adopted. Medical organizations, both in relation to scientific and other business, are no exceptions to this routine. Depending upon the experience of those who draft a method of organization, the rules may or may not be made real factors in the growth and development of a society and its purposes. The by-laws under which a medical society works, therefore, may have an important bearing on its capacity to serve both its members and the communities in which its members practice their profession.

* * *

Why the By-Laws Are Printed in the Original Articles Department.—In the original articles of this issue of the OFFICIAL JOURNAL* appear the By-Laws of the Los Angeles County Medical Association, adopted, on October 25, 1937 by a vote of 1,750 members in favor, with seventy-five votes against. Some ten years ago, when the revision of the Constitution and By-Laws of the California Medical Association was started, in a search then made in medical journals for some by-law models, it was rather surprising to discover that, in spite of the intensive development of medical organizations in the last thirty years, there was almost an absolute paucity, in the literature, of by-law forms. From which fact it would appear that, so far as by-laws of state and county medical societies were concerned, these, like Topsy, "just growed."

It is, therefore, all the more to the credit of medical societies that, in spite of what might be termed obsolete or inadequate inclusions in their constitutions and by-laws, these organizations should have been able to fulfill their obligations in private and public health practice, in the excellent manner shown by their records; this being explained, perhaps, by the forward outlook of individual members, who have made possible the

† Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column which follows.

* See page 396.

solution of imminent problems, through the work of special committees brought into being for such ends. Good as such a haphazard plan may be, in particular instances, it is not one that, in the long run, makes for fullest realization of objectives, and especially so since today, as never before, the medical profession is confronted with problems so important and far-reaching, in both private practice and public health work, that the aid of every member is needed in devising ways and means that will prevent overlapping, working at cross-purposes, or fighting windmills. It is just here, therefore, that a constitution and by-laws adapted to present-day and future needs may be made to serve beneficent and desirable aims, by making it possible that all efforts, designed to promote scientific and organized medicine, shall make not only for a minimum of wasted energy, but the largest possible return in efficient results.

* * *

All County Societies Have in Common Certain Basic Aims.—In forming the new Constitution and By-Laws of the Los Angeles County Medical Association—a unit with a membership of 2,340 physicians—the above principles were kept in mind by its Committee on Revision, which held meetings off and on, during a period of two years, before submitting, in September last, its final draft. Even though that county society is a corporation, and one of the largest county medical associations in the United States, with material assets valued in excess of five hundred thousand dollars, its new by-laws should have suggestive value to other county units, no matter of what size. It may be in order, therefore, to mention some of the salient provisions in this component county society's new organization rules.

* * *

Stability of Organization and Continuity of Policy Important.—Among the first objects of a permanent nature to be sought by any organization are stability, and also continuity in policies. To insure such stability, it is necessary that a mode of organization be adopted that provides for recurrent election of officers who will not only carry on its immediate work, but whose tenures of office will make for proper continuation of policy. To this end, rules should provide that, at the annual elections, the terms of a sufficient number of officers must "hold over," in order that the established activities of preceding years, as based on the needs of the unit and its environment, shall be carried through to proper conclusion. Nothing is more depressing in a medical society than to see a forward-looking, result-producing administration supplanted by a group of officers, of excellent reputation as physicians and of high standing in the community, who have, however, little conception of the need of alertness in matters of policy, and who, at the end of their period of service, register in the records another calendar year of officers, but with little in the way of attainments in scientific or organized medicine for their profession, their society or their fellows.

Staggering Terms of Office.—A perusal of the Los Angeles By-Laws* will indicate how the Committee on Revision sought to overcome this possible danger, through provision for staggering or overlapping tenures in office, with hold-over terms of seven years for trustees and three years for councilors and standing committees. In smaller societies, the council can be reduced from twenty-four to seven members—president, vice-president, secretary-treasurer and four councilors, the first three serving as an executive committee; or to a council of nine or twelve along somewhat similar lines. If a society does not possess material interests of any great amount, a board of trustees (acting as the board of directors in case the society is incorporated) is hardly necessary. When the society is of considerable size, however, it may prove desirable that the chosen councilors be elected in staggering terms of one, two or three years or four years, to insure continuity of policy, in case other officers happen all to go out of office in the same year.

* * *

Importance of Standing Committees.—As regards the standing committees, of which twenty-one are provided in the Los Angeles By-Laws—the members being elected in staggering terms of one, two and three years—the functions of these, in smaller societies, can be consolidated into a lesser number. The value of standing committees, and their advisory groups, must not be underrated, because they permit the placement of younger, working members, who thus secure early training in organization work, and who, through their willingness and enthusiasm to serve and work, may add greatly to the scope and attainments of a county unit.

Attention is called to Committee 21, on the "State of the Association," which provides that all officers and standing committee members shall hold two regular meetings each year to hear reports on work accomplished and of plans in the forming. Too often, the elected officers and committeemen of a county society fail to get together in joint session to discuss their mutual responsibilities and the needs of their organization. The conjoint "Committee on the State of the Association" helps to overcome this deficiency. All standing committees should appoint their respective advisory groups early in each year.

In smaller societies, the president of the organization may act as chairman of the council, but in larger associations it may be advantageous to have the council elect its own chairman, in preference to having the titular head acting in that capacity.

* * *

"Retired Membership": Disciplinary Action. Attention may also be called to the desirability of using the term "retired members," rather than "honorary members," in conformity with the State Association By-Laws.

Notice is also directed to the brief paragraph on disciplinary action of members [see Article I—Membership, Section 9—Termination of Membership, Item (e)], in which the entire disciplinary

* See page 396.

code of the county unit is made to be one and the same with that of the California Medical Association. By action of the California Medical Association House of Delegates this year, a similar provision is mandatory for every county medical unit in California.

* * *

County Units Should Consider Revision of By-Laws.—The suggestion is made to county units of the California Medical Association, which have not, perhaps, considered their rules of organization in recent years, to appoint a special committee on revision, to look over their own, and the by-laws of the Los Angeles and other county societies, and to bring in a report on desirable or needed changes.

Let it not be forgotten that, at present, the medical profession in the United States, including California, has a multitude of problems such as did not obtain in days gone by; and also, that it is good to remember that scientific medicine as it now exists, and as we hope it shall carry on in the future, will only be able to do so when efficient, organized medicine is back of it. Let there be no misunderstanding on that point. And we may add further that, if this fact is not reckoned with, among the loudest howlers, when things finally go amiss, will be some of the "super-exponents of scientific medicine." Wherefore, let us all pull together, to advance "scientific medicine" through a stronger and better "organized medicine."

A NEW DRIFT TO "SOCIALIZED MEDICINE," INTENTIONAL OR UNINTENTIONAL: A QUITE RECENT EXAMPLE

A Letter from the Secretary of the "Committee on Physicians."—On October 28, 1937, we received from John P. Peters, M. D., New Haven, Connecticut, secretary of a "Committee of Physicians for the Presentation of Certain Principles and Proposals of Medical Care," a letter concerning the objects of that committee, in which, among other things, it was stated:

"The principles and proposals set forth in it were drafted, as a basis of discussion, by a small committee of physicians which served in a consultative capacity with the American Foundation in connection with its recent report, 'American Medicine.'" . . .

"I am enclosing the list of those that have already subscribed to it. I hope your study of the draft will lead you to affix your own signature. If you cannot, will you let me know the nature of your objections?"

* * *

The Press Release of "The Committee."—We did not give consent to use our own name to the above, nor did we then write our objections, which we do now, and so were not surprised when, under date of November 7, we received a release galley proof from which some excerpts follow:

"A committee of medical men, representing 430 physicians and surgeons throughout the country, announced today that they have sent to medical organizations, for their consideration, certain principles and proposals to which the 430 have subscribed, and which they believe should govern needed efforts to improve medical care, whether made by voluntary or governmental agencies, local, state, or federal. The formulation of the principles and proposals was made 'in the hope that they may receive the consideration of the national government and of medical organizations.'" . . .

"It seems to us probable that certain alterations in our present system of preventing illness and providing medical care may become necessary; indeed, certain changes have already occurred. Medical knowledge is increasing rapidly and is becoming more complex. Changes in economic and social conditions are taking place at home and abroad. Medicine must be mobile and not static if medical men are to act as the expert advisers of those who convert public opinion into action." . . .

* * *

Committee's "Four Principles."—Concerning the "Four Principles" which led some four hundred physicians to attach their signatures, we quote, with some comments of our own after each:

"The following principles and proposals are submitted in the hope that they may receive the consideration of the national government and of medical organizations:

"1. That the health of the people is a direct concern of the Government."

Comment.—Of course, the health of the people is a direct concern of the Government. That is why we have the United States Public Health Service, the California State Board of Public Health (functioning since 1852), and our county, municipal and district health officers and other public health organizations.

"2. That a national public health policy directed toward all groups of the population should be formulated."

Comment.—To formulate a national public health policy is one thing, but to put the same into execution in each commonwealth, without infringement on a state's rights, may be quite another; the matter depending entirely on what it is proposed to do. There are physicians who advocate a national medical examining board, but the advocacy must remain confined to words until such time as the Constitution of the United States—which, as an expression of states' rights, places intrastate police jurisdiction under each commonwealth—is changed. In other words, the States of the Union can do many things, regarding their own needs, as good or better, than can the Federal Government, and the Constitution of the United States so authorizes.

Apropos to the above, our eyes caught a paragraph in a syndicated article in the *Kansas City Star* of November 21, from the pen of U. S. Senator Josiah W. Bailey of North Carolina, the thought of which might well be pondered by all who espouse paternalistic care from the National Government. Senator Bailey makes these significant comments:

"We ought always to remember that the basis of American life is local self-government, not federal control. This has accounted for the progress and success of our people. If we shall abandon it, we shall pay a fearful penalty for the experience."

"3. That the problem of economic need and the problem of providing adequate medical care are not identical, and may require different approaches for their solution."

Comment.—With Principle 3 we are quite in accord, provided that those who espouse the same do not attempt to use it as a weapon or camouflage to inflict a radical change in medical practice as it exists in the Union today, through, for instance, the institution of a compulsory health insurance system.

"4. *That, in the provision of adequate medical care for the population, four agencies are concerned: voluntary agencies, local, state and federal governments.*"

Comment.—The four agencies mentioned in the provision of adequate medical care are, and have always been, interested in the provision of adequate medical care. Those four agencies have played active rôles in bringing into being morbidity and mortality rates which are low in comparison to Europe and other countries, where individualization in medical practice is less in evidence. It is to be regretted that the term "adequate medical care" was not defined in the pronouncement. Certain individuals give the term some rather strange connotations! (Example: California Medical-Economic Survey Report.)

* * *

The Nine Proposals.—The nine following "Proposals," through which, presumably, the aforementioned principles are to be attained—how do these read?

PROPOSALS

1. That the first, necessary step toward the realization of the above principles is to minimize the risk of illness by prevention.

2. That an immediate problem is provision of adequate medical care for the medically indigent, the cost to be met from public funds (local and/or state and/or federal).

3. That public funds should be made available for the support of medical education and for studies, investigations and procedures for raising the standards of medical practice. If this is not provided for, the provision of adequate medical care may prove impossible.

4. That public funds should be available for medical research as essential for high standards of practice in both preventive and curative medicine.

5. That public funds should be made available to hospitals that render service to the medically indigent and for laboratory and diagnostic and consultative services.

6. That in allocation of public funds, existing private institutions should be utilized to the largest possible extent and that they may receive support so long as their service is in consonance with the above principles.

7. That public health services—federal, state, and local—should be extended by evolutionary process.

8. That the investigation and planning of the measures proposed and their ultimate direction should be assigned to experts.

9. That the adequate administration and supervision of the health functions of the Government, as implied in the above proposals, necessitates, in our opinion, a functional consolidation of all federal health and medical activities, preferably under a separate department.

The subscribers to the above principles and proposals hold the view that health insurance alone does not offer a satisfactory solution on the basis of the principles and proposals enunciated above.

* * *

Comments on "The Proposals."—It would take us, in these columns, too far afield if we attempted to comment on each of the above proposals in turn. Several, such as Number One, *"That the first, necessary step toward the realization of the above principles is to minimize the risk of illness by prevention,"* have not only been accepted, but have been practiced by the medical profession of America, in years gone by, as rapidly as procedures have proven safe and practical, and as soon as sufficient financial appropriations were made by the governmental agencies involved. Whatever deficiencies may exist in preventive medicine today are probably due more to political forces placed in power by votes of citizens than through any opposition by the medical profession.

Some of the other proposals, needing for their fulfillment large allocations of federal monies, are so far from possible realization (judging by past experiences), and so opposed to what federal, state and local political powers are willing to grant, that their enunciation must be construed as little more than idealistic expressions of viewpoints of the four hundred physicians who signed the letter (some of whom are said to have withdrawn their names), rather than as something these four hundred physicians and their supporters could themselves hope to obtain in actual money allotments from governmental agencies.

* * *

Theory and Practice in California.—Take, for example, Proposal 2, *"That the immediate problem is provision of adequate medical care of the medically indigent, the cost to be met from public funds (local and/or state and/or federal)."* In recent years, and particularly in California, there has been considerable advocacy of the substance of this Proposal 2. But how is it working out in practice in the Golden State, and especially since the Appellate Court opinion in the Kern County Case? Let us consider, in this connection, the wealthy County of Los Angeles, where, for some time, a new County Department of Collections has been sending statements—presumably to all of the more than 50,000 in-patients who yearly pass through its new seventeen million dollar County Hospital—charging each patient an average sum of $4 a day for care in the institution! Here we have a case in which a wealthy county is charging more for hospitalization ward service than the rates for similar service in most of the private hospitals in Los Angeles. In other words, the County of Los Angeles charges for its hospitalization services, assessing the same against in-patients or responsible relatives, or takes liens on future incomes or on equities of properties possessed by the near-indigent! In this public institution, who gives the gratuitous or charitable care? *The answer is:* The members of the attending staff of more than 300 physicians and surgeons, the money value of whose professional services has been estimated as almost two million dollars annually! But of this Los Angeles problem, however, more on some later occasion. *How does this fit in with Proposal Number 2?*

* * *

"The Committee's Proposals" Worthy of Consideration.—Nevertheless, members of the Association should take the time to read and reflect concerning the proposals above outlined, with particular reference, not to idealistic theorizing, but rather to practical methods that would make for real progress and attainment of results devoutly to be wished for by all. For those who are interested, a list of the California members of

The Committee of Four Hundred Physicians is given in a footnote.*

* * *

American Medical Association Comments Concerning the Committee. — Regarding the recent promulgation, it may be in order to quote a press dispatch sent out from American Medical Association headquarters on November 8, the day after the article was released by the "Committee of Physicians." Press dispatch follows:

"Socialized Medicine" Hit by Doctors

American Medical Association Fights Proposed Governmental Control of Profession

Militant medical leaders, incensed over the plan advanced by 430 "insurgent doctors" for "socialized medicine," on November 8, in Chicago, mapped a fight to prevent governmental control of the profession, according to International News Service.

The plan which drew the fire of the American Medical Association was advanced by a committee including Dr. Thomas Parran, Surgeon-General of the United States, and more than 400 other "insurgent" medical experts.

They suggested immediate allocation of public funds for medical care of the indigent and for furthering hospitals and medical schools.

Control Opposed

Dr. Morris Fishbein, Editor of the *Journal of the American Medical Association,* and leader of the opposition to such a plan, declared:

"There are 106,000 doctors who belong to our group. This proposition is merely the ideas of 430 of them against the greater majority.

"We shall always oppose any effort by the Federal Government to control our profession—and that's just what this scheme would bring about."

The nine-point program of the "insurgents" has already drawn the spirited fire of the American Medical Association, a group with which most of the plan's proponents are themselves allied.

* * *

A Lay Feature Writer's Tribute to the Committee.—In bringing these comments to a close,† we quote a feature writer of the International News Service, who, on November 7, in commenting on this new adventure in socialized medicine, used the following language in regard to the personnel of the "Committee of Physicians":

". . . Committee of 430 internationally-known physicians, who led a 'revolt' in favor of state medicine and against the hitherto unquestioned edicts of the American Medical Association. . . ."

* The California physicians, whose names were included in the list of 430, are as follows: William H. Barrow, San Diego; Dudley W. Bennett, San Francisco; LeRoy H. Briggs, San Francisco; Howard A. Brown, San Francisco; Philip King Brown, San Francisco; Hermon C. Bumpus, Jr., Pasadena; Loren R. Chandler, San Francisco; John Dunlop, Pasadena; Leo Eloesser, San Francisco; Ernest H. Falconer, San Francisco; P. K. Gilman, San Francisco; S. L. Haas, San Francisco; Richard W. Harvey, San Francisco; Frank Hinman, San Francisco; Samuel H. Hurwitz, San Francisco; O. W. Jones, Jr., San Francisco; William J. Kerr, San Francisco; Fred H. Kruse, San Francisco; H. Clifford Loos, Los Angeles; Frank W. Lynch, San Francisco; Francis M. McKeever, Los Angeles; Paul S. McKibben, Los Angeles; Stacy R. Mettier, San Francisco; Karl F. Meyer, San Francisco; Wayland A. Morrison, Los Angeles; Howard C. Naffziger, San Francisco; J. L. Pomeroy, Los Angeles; Frances M. Pottenger, Los Angeles; Irwin C. Schumacher, San Francisco; Henry H. Searls, San Francisco; Sidney J. Shipman, San Francisco; Edward B. Shaw, San Francisco; Francis Scott Smyth, San Francisco; Wallace I. Terry, San Francisco; John C. Wilson, Los Angeles; Sidney N. Zuckerman, San Francisco.

† On this same subject, see also comments on page 366, second column.

THE PRESS PROPAGANDA ON MEDICAL PREPARATIONS

Printed Publications and the Radio Have Supplanted the Spoken Word.—We are all agreed that propaganda by the press and radio has supplanted the spoken word, as understood and applied in days gone by to conversations or platform lectures. We mention this fact because a substantial number of physicians still cling to the notion that the medical profession must not lower itself by combating erroneous or lying statements concerning matters medical when such appear in the public press. In one sense, this dignity of self-respect is quite proper; but, on the other hand, and especially so under propaganda conditions which the public today constantly faces on political, economic, and social welfare and what-not subjects, it is a question whether a dignified silence by the profession, when misstatements are bandied about in public prints, may not later lead to the necessity of much more work in efforts at neutralization than if, in blunt fashion, the problems had been openly discussed at the outset. Two recent instances come to our mind in this connection, and on each we shall comment briefly.

* * *

"Eye-Drop Insanity."—The International News Service, on August 24, printed a feature writer's dispatch with the caption, "Eye-Drop Insanity," presumably casting a slur upon the use of atropine when used as a mydriatic in examinations for refractive errors of the eyes. To show how such an article reacts upon the public, we would state that two patients called our attention to it. We had been sufficiently interested, in our own perusal of the dispatch, to write promptly to the two Boston physicians quoted, and we give below both our letter of inquiry and the reply thereto from Dr. William Dameshek, whose article was printed in the *Journal of the American Medical Association* of August 21, 1937, on page 561. Our letter follows:

(Copy)

Los Angeles, August 25, 1937.

Dear Doctors Dameshek and Feinsilver:

In the Los Angeles *Examiner* of August 24, 1937, appears an International News Service Science Editor dispatch signed by Gobind Behari Lal, having the caption, "Eye-Drop Insanity: Two Doctors Declare Atropine Causes Psychosis," and in the text it is stated:

"It is allegedly produced by the use of atropine eye drops, sometimes used in testing vision."

The item then refers to yourselves as having described five cases of such atropine insanity.

We would appreciate greatly your courtesy if you would write and give us the details concerning this, because an item such as the above can do much harm. . . .

To this letter we received the following interesting reply:

Boston, August 30, 1937.

Dear Doctor Kress:

I know only too well about the fiction which was just released by the International News Service. It is unfortunate that science editors of various newspaper services will distort scientific literature and make hash out of it. The original article was published in the *Journal of the American Medical Association* for August 21 [page 561], and you will note from this article that there was no mention of atropine insanity at all. The paper was described chiefly

as a test for the psychosis produced by various members of the atropine series [scopolamine, atropine, hyocyamin, and stramonium]. The paper stressed the test; the newspapers stressed the insanity, which in reality was caused by scopolamine inadvertently used in place of homatropine. Here in Boston I tried to get them to stop publication, but they garbled the thing even more than the News Service report had it originally. Maybe you could do something about Hearst in his own home state.

Very truly yours,
William Dameshek, M.D.

Comment: From the above it is very evident that the "Science Editor," (whose comments, by the way, were quoted and played up in the optometric press), has still much to learn about "science," before he assumes to exploit his interpretations to a lay public.

* * *

Elixir of Sulfanilamide-Massengill Poisonings.—On the other hand, to cite a different instance, the daily press, after the first day or so of publicity concerning the deaths from "Elixir of Sulfanilamide-Massengill," has performed a real publicity service. The lives lost through that preparation demonstrate, in a somewhat spectacular manner—(we Americans seem to need emotional and spectacular reactions to rouse us from our lethargy on certain matters)—the need of a revision of the Federal Pure Food and Drug Laws, so that those statutes will be given teeth to more effectively prevent misbranding and adulteration. At the Conference of State Medical Association Secretaries and Editors, recently held at Chicago, it was stated that it was quite in order to write United States senators and congressmen urging revision of the federal food and drug laws in such manner as to make for better protection of the health and lives of citizens. There are several bills of this nature before Congress, but the espousal of any particular one is not necessary. It is suggested that component county societies write their federal representatives in favor of the principle of better protection through more stringent federal food and drug statutes.

Here, in California, seizures of the sulfanilamide preparation were made in San Francisco, as will be noted in the following press dispatch:

Elixir Kills Californians

Inquiry Launched Into Four Deaths

Investigation of four deaths in California in the Federal Government's far-flung efforts to remove from the market a deadly sulfanilamide mixture was disclosed in San Francisco on November 1, by J. C. Morton, head of the United States Food and Drug Administration in San Francisco, according to Associated Press.

Morton said the deaths, the first to come under investigation in California, occurred during recent months.

The drug mixture, used for treatment of streptococci infections, is believed to have caused more than fifty deaths in other parts of the United States.

Pitiless publicity should be the treatment of drug purveyors who are responsible for such wholesale destruction of human life as was caused by this Elixir of Sulfanilamide-Massengill. That, and a revision of the Federal Pure Food Drug Act to make it more effective than under its present restrictions. Why not, therefore, have your county society pass resolutions in favor of such revision? There never has been a better time to act in this than right now. Mention of the Elixir Sulfanilamide-Massengill to congressmen will make plain the significance of your presentation.

STATEMENT OF THE A. M. A. BOARD OF TRUSTEES ON THE "COMMITTEE OF PHYSICIANS" COMMUNICATIONS

Later News Concerning the "Committee of Physicians."—Following the transmittal to the printer of the copy for the second editorial in this number of the Official Journal of the California Medical Association, we attended the two-day session of State Association Secretaries and State Association Editors, held at the American Medical Association headquarters in Chicago on November 19 and 20. At that meeting, American Medical Association Secretary Olin West brought to the attention of the Conference the letters and press releases that had been broadcast by the "Committee of Physicians," and also a somewhat later letter of November 11, emanating from California. The latter letter and its enclosure are printed in the Letters department of this issue, on page 431.

* * *

Statement of the Trustees Embodies Important Principles.—Concerning the communication of the Four Hundred, brought out under the name of "The Committee of Physicians," the president of the Board of Trustees of the American Medical Association, Dr. Arthur W. Booth of New York, read a statement which the American Medical Association Board of Trustees instructed should be printed in the *Journal of the American Medical Association,* with release to the press on November 21. Because of the important facts and principles therein stated, this statement of the Board of Trustees is printed below.* Members of the California Medical Association who are not in accord therewith are invited to inform the California Medical Association Council of their personal opinions.

For those who think these matters of small moment, we can only say that perhaps they might and should be, were it not for the deplorable fact that expressions of self-constituted groups, such as "The Committee of Physicians," are seized upon by the enemies of scientific and organized medicine, and quoted and distorted in utter disproportion, no matter how well meaning the signers of the communications may have been.

The attention of readers is also called to a bulletin, printed in Letters department, on page 430, in which the executive officers of the California Medical Association ask the members of the California Medical Association to reflect and to inquire from the Central Office, before inadvertently signing their names to something they might later regret they had presumably espoused. The statement by the American Medical Association Board of Trustees follows:

* The Conference of State Association Secretaries and Editors, on November 19, at Chicago, by unanimous vote approved the statement of the A. M. A. Board of Trustees as here printed.

For other comments on subject here discussed, see page 363.

Principles and Proposals of the "Committee of Physicians"

The Board of Trustees [of the American Medical Association] has especially authorized the publication of the following statement:

Following the publication of the report of the American Foundation Studies in Government, a small group of physicians, assembled in New York, developed certain principles and proposals which have since been circulated by a self-appointed Committee of Physicians among the medical profession of the United States, with a view to obtaining signatures in their support. During a period of approximately six months, some 430 medical men have apparently permitted the use of their names. Early in November the self-appointed group of physicians released to the press for Sunday, November 7, a statement of principles and proposals to which the names of the 430 signers were affixed. The newspapers generally heralded this action as a revolt against the American Medical Association, in a great majority of the cases indicating that there was a revolt in behalf of "state medicine." The publication of this manifesto and the attached signatures has been heralded with glee by many of those who have been opposing the American Medical Association in behalf of coöperative practice, sickness insurance, and various fundamental changes in the nature of the practice of medicine. Within the last week another series of proposals has come from another self-appointed group requesting signatures of physicians. This series of proposals includes the suggestion for enabling legislation for sickness insurance.†

The American Medical Association is an organization of physicians along strictly democratic lines. Representatives of county medical societies send delegates to state medical societies and these, in turn, send their delegates to the House of Delegates of the American Medical Association. It is possible for any physician, through his delegate, to obtain consideration of any proposal which he may wish to bring to the attention of the House of Delegates. At the Atlantic City session the delegates from New York State presented these principles and proposals, slightly modified, as an action of the House of Delegates of the New York State Medical Society. They were carried before a reference committee and, in several sessions of that reference committee, considerable numbers of physicians presented arguments for and against their adoption. The House of Delegates, however, after thorough consideration of the report of the reference committee, and with full cognizance of the method of development of these principles and proposals, and of the considerations which were involved in their passage by the House of Delegates of the New York State Medical Society, did not accept them. The House of Delegates did, however, point out the willingness of the medical profession to do its utmost today, as in the past, to provide adequate medical service for all those unable to pay either in whole or in part.

Why, then, any necessity for the circulation of petitions presenting proposals for fundamental changes in the nature of development, distribution, and payment for medical service? Is there a well-designed plan to impress the executive and legislative branches of our government with the view that the American medical profession is disorganized, distrustful of its leaders, undemocratic in its action and opposed to the best interests of the people? Who may profit from such evidence of disorganization? Is there any evidence that the self-appointed Committee of Physicians and the 430 physicians who have affixed their names to these principles and proposals are any better able to represent the opinion of the American medical profession than the democratically chosen House of Delegates of the American Medical Association—one of the most truly representative bodies existing in any type of organized activity in this country today?

The House of Delegates has given its mandate to the Board of Trustees, to the officers and to the employees of the Association. That mandate opposes the principles and proposals emanating from the Committee of Physicians, and equally the new proposals. If the House of Delegates sees fit to depart from the principles now established, it will be the duty of the Board of Trustees, the officers and the employees of the American Medical Association to promote such new principles as the House of Delegates may establish. Until, however, the regularly chosen representatives of the 106,000 physicians who constitute the membership of the American Medical Association (now the largest membership in its history) determine, after due consideration, that some fundamental change or revolution in the nature of development, distribution and payment for medical service in the United States is necessary, physicians will do well to abide by the principles which the House of Delegates has established. They will at the same time deprecate any attempts inclined to lead the executive and legislative branches of our government, as well as the people of the United States, into the belief that the American medical profession is disorganized.

Members of the medical profession, locally and in the various states, are ready and willing to consider, with other agencies, ways and means of meeting the problems of providing medical service and diagnostic laboratory facilities for all requiring such services and not able to meet the full cost thereof. The American Medical Association has reaffirmed its willingness on receipt of direct request to cooperate with any governmental or other qualified agency and to make available the information, observations and results of investigation, together with any facilities of the Association. Thus far, no call has come from any governmental or other qualified agency, for the coöperation of the American Medical Association in studying the need of all or of any groups of the people for medical service, to determine to what extent any considerable proportion of our public are actually suffering from lack of medical care. The offer still stands as evidence of the willingness of the American Medical Association to aid in finding a solution to any or all of the problems in the field of medical care that now prevail.

† The reference here made is to a letter sent out by California physicians, and printed in this issue, on page 430.

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 415.

EDITORIAL COMMENT†

CIVILIZATIONS AND THEIR DISEASES, AND REBUILDING A WRECKED WORLD CIVILIZATION*

Astonishing, if not amazing, as the work of a nonagenarian, this substantial volume, designed to set one a-thinking, from the brain of Dr. Joseph Pomeroy Widney, founder of the Los Angeles Medical Association, now in his ninety-sixth year, is the latest addition to an already ample literary output, the worth while fruit of an intellect still virile and ever active; reaching out, despite the handicap of loss of sight, along the tracks of history to remote corners of the world, and even peering afar, as it were, into the vast, unknown universe. He dedicates the book "To the Unresting Dead of a Mighty Past," in verses, the opening stanza reading:

> Night—and an upland plain,
> Lone mountain looking down,
> A broken colonnade,
> And an esplanade once trod
> By long-forgotten feet,
> Ages and ages ago.

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

* By Joseph Widney. Cloth. Pp. 176, with two illustrations: Frontispiece of the author and "Presentation of Bust of Dr. J. P. Widney to Library of Los Angeles Medical Association." Los Angeles: Pacific Publishing Company, 1937.

The author forms a Preface of his address to the Medical Association on the occasion of the Widney bust unveiling on May 11, 1937, as duly reported in California and Western Medicine, and offers the already attracted reader both "A Personal Word," as an item or two of autobiography, and "A Retrospect," recounting how, when surgeon in the United States Army, 1867-1869, doing field duty in Indian-infested Arizona, he first began, in the deathless quiet of the desert, his saddle for a pillow and constantly exposed to peril, to find answers to questions he had been asking himself since boyhood. There he learned how primitive men lived, and there he found the key that unlocked the years so long gone. "From the man of the desert, from the lines of the emigrant wagons and their needs, I read the laws of ages ago." Discussing the discovery of fire, as part of the family history of civilization, this early California pioneer says: "The use of flint and steel was still common among the Spanish of the old Mission days after I came among them in 1868. Matches were a luxury, and were not wasted." And he then tells what he knew of evidences of the Cliff Dwellers in Arizona and New Mexico, and their clever use of fire.

Coming to discuss "civilizations which seem to be dying," the author pays especial attention to the Italy of the twentieth century, with a pointed remark about the so-called Dictator of the Mediterranean. "It is this land," he says, "in which, after fifteen centuries, Mussolini is trying to rebuild the old Roman Empire. But he has to work with a people from whom the old Latin blood is largely gone. The Italy of today belongs among the decadent bloods of earth's dying and dead. Can Mussolini succeed? Time will show; but the odds are against him." The writer also turns his spotlight on "The Latin Sisters: Italy and Spain," asking if the Italy of Virgil, Livy, and Marcus Aurelius, and the law of military supremacy can live again? "Italy is united in name, but is starving, and Mussolini's efforts in Tunisia are a struggle for food." So he believes that "the causes of Spain's decline and death were of her own making, and in her madness she is destroying herself."

Part II, or the second half of Doctor Widney's book of very suggestive essays, is devoted to reflections on "The Rebuilding of a Wrecked Civilization," a chapter of particular interest being that which portrays "The Strong Man," and pictures his coming again. Mussolini, trained in war, is trying to rehabilitate Italy, and there is Hitler, with the "Greater Dual Alliance," while Stalin is welding Russia together. There may be a healing of the nations, but there are serious problems which the world still has to face. The sick world, indeed, needs diagnosis, and a prompt one at that, and then a speedy follow-up, to reach all the sources of infection. P. W.

PRURITUS: A SUGGESTION

The subject of pruritus, especially perianal, always has been an unhappy one, because the medical profession has been able to do so little for it except when a very specific cause could be found, such as the types definitely caused by fungus. Everything in the book has been recommended as a cure. Once in a while we find x-ray treatment of value, but more often not.

Because we noted, some years ago, that the patients who were urged to wash the parts thoroughly with soap and water after a bowel movement were improved or cured, a superficial irritation of the skin was thought to be the cause; and for this reason, having had such success in the treatment of burns and ulcers on other parts of the skin with the use of 1 per cent watery solution of gentian violet painted on and thoroughly dried, we tried it in the treatment of pruritus.

The parts are thoroughly cleaned and dried, the gentian solution is then painted on and thoroughly dried at the time with our connection with compressed air. Fanning probably would do as well. This should be used every day for a while, then three times a week if necessary. It will be found that there is a decided improvement, if the method is properly used as above described.

We offer this for trial by the profession because we have had such a signal success in a few cases.

384 Post Street.

Alanson Weeks,
G. D. Delprat,
San Francisco.

HEAT-REGULATING EFFICIENCY AND IMMUNITY

This current tendency to ignore specific serum components, and to study microbic infections from a broad physiologic point of view, is well illustrated in recent studies by Dr. Arthur Locke[1] of the Western Pennsylvania Hospital, Pittsburgh, Pennsylvania. The Pennsylvania bacteriologist studied the relation between the heat-producing and heat-regulating mechanisms of rabbits, and their resistance to experimental pneumococcus infections. To determine heat-regulating and heat-producing efficiency, Doctor Locke chilled his stock rabbits by partial immersion in cold water until the rectal temperature had been reduced to approximately 95° F. The rabbits were than dried to fluffiness with absorbent cloths. The rate of rectal temperature recovery was then determined. In his most efficient rabbits, a 3° restoration of rectal temperature was accomplished within twenty minutes. These animals were assigned an arbitrary "fitness rating" of one (100 per cent). Rabbits requiring forty minutes for a similar restoration of temperature were given rating of 0.5; those requiring as long as 125 minutes, a rating of 0.16 (20/125). Doctor Locke found that fitness rating thus calculated is fairly constant under routine laboratory conditions, maximum discrepancies on retests being in the neighborhood of 10 per cent.

For his first immunologic tests, Doctor Locke selected twelve Class A rabbits (*i. e.*, animals

1 Locke, Arthur, J. Infect. Dis., 60: 106 (Jan.–Feb.), 1937.

whose "fitness rating" was over 0.6), and eleven Class C rabbits (rating below 0.5). Each rabbit was given an intravenous injection with from six to eighty-three highly-virulent type one pneumococci per c.c. of calculated blood volume. Blood cultures, (pour plates), were made at the end of thirty minutes, one hour and three hours to determine the rate of disappearance of the pneumococcus from the circulation. All rabbits of Class A accomplished this sterilization of the blood stream within thirty to sixty minutes, even after intravenous doses as high as eighty-three microörganisms per c.c., while 92 per cent of the rabbits of this class showed no fever or other demonstrable symptoms. All recovered from the infection. Class C rabbits, in contrast, were not able to accomplish removal of pneumococci from the circulation, even when the intravenous dose was reduced to six microörganisms per c.c. All Class C rabbits died within three days of pneumococcic septicemia. Class B rabbits occupied an intermediate position, some of them showing a complete removal of pneumococci from the blood stream by the end of sixty minutes; 69 per cent of them recovered from the infection.

Doctor Locke's second series consisted of sixteen Class A, nineteen Class B, and sixteen Class C rabbits. Each animal of this series was injected intradermally with 800 to 2,000 highly-virulent type one pneumococci. Penetration of the pneumococci from the intradermal focus into the blood stream was estimated from pour plates made at the end of twenty-six hours. Some 69 per cent of his Class A rabbits yielded practically negative blood cultures at this time, and 44 per cent of Class A recovered from the infection, while 93 per cent of Class C rabbits showed a blood count of 2,000 or more pneumococci per c.c. at the end of twenty-six hours. All Class C animals died from the resulting generalized infection. Group B occupied an intermediate position, 21 per cent showing 2,000 or more circulating pneumococcus per cc. at the end of twenty-six hours, and 89 per cent of them dying from pneumococcus septicemia.

Doctor Locke then studied environmental and therapeutic factor-causing fluctuations in his "fitness rating," and natural resistance. Transfer to quarters, kept at 20° F. higher temperature than the routine animal rooms, was followed by a 30 per cent fall in fitness rating. Proportionate improvements in fitness were observed as a result of transfer to 20° F. cooler quarters. Morphin administered in doses sufficient to inhibit shivering depressed fitness rating. Smaller doses were without demonstrable effects. Marked depression in rating was observed following withdrawal of food, but no continuing impairment in rating till the resulting weight loss was increased to 2.5 per cent per day.

Occasional improvement in fitness rating was observed following subcutaneous injection with "antuitrin." Marked improvements followed intravenous injection with "cortin." Daily feeding with liver extract prepared for treatment of pernicious anemia (or an intravenous injection with this extract), led in all cases to improvement in fitness rating. Control intravenous injections with peptone, heparin, or normal horse serum gave negative results.

Therapeutic improvement in fitness rating, however, conferred ability to survive experimental pneumococcus infection only when treatment was continued for a sufficient length of time to lift the fitness rating above the "critical level," 0.6. Doctor Locke found that his "critical level" varied with the pneumococcus strain tested. Rabbits infected intradermally, with relatively nonvirulent "type V" pneumococci for example, successfully resisted septicemic invasion if their fitness level was above 0.3.

In order to determine probable clinical applications of his efficiency gradiant, Doctor Locke measured the oxygen consumption per square meter of body surface of sixty-eight individuals during maximum effort with arms and legs on a machine resembling a stationary bicycle. Oxygen consumption varied from 410 to 1,500 c.c. per minute per square meter of body surface. Relative fitness was calculated by arbitrarily assigning a fitness rating of one (100 per cent), to the highest figure (1,500 c.c.). Thus, a person consuming 410 cc. per minute would have a calculated rating of 410/1500 or 0.27. The sixty-eight persons thus classified were asked to report the number of colds they had had during the observational period of seven months; eighteen persons with fitness rating above 0.6 reported one cold or less during this period, and nine persons with fitness ratings below 0.5 reported four colds or more during the same period of time.

P. O. Box 51.

W. H. Manwaring,
Stanford University.

IS BREAST FEEDING ALWAYS BEST?

In every discussion of infant feeding, we are invariably greeted with the trite statement: "Mother's milk is the best infant food." This has been preached so often that it has come to be regarded as gospel. Yet, like all gospel, it is subject to interpretation.

What is really meant is that a good grade of mother's milk is the ideal infant food. Unfortunately, however, not all mother's milk is good, by far.

In fact, the present-day upper-class mother in this country, while an excellent baby producer, is generally, a poor milk producer.

Pediatricians agree that successful breast feeding is rapidly becoming a rarity, especially in private practice. Just why healthy women cannot lactate defies explanation. Many who are most eager and best circumstanced fizzle after the first few weeks, despite the most sincere effort.

And, old adages to the contrary, this is not to the detriment of the babies, for today average artificially fed babies, under proper care, do equally as well as breast-fed, if not better. In fact, in cases where a desperate nerve-wracking effort is being made to augment a deficient supply, the baby is the chief sufferer. (Prematures are not referred to here; for them, all effort must be made to secure high-grade breast milk. But even in those cases, their own mothers seldom can be utilized as the source.)

The statement about mother's milk being best is a hand-me-down from a generation ago, when it was irrefutably true. At that time, nutritional requirements of infants were not definitely understood, and production of *safe* cow's milk was an unknown endeavor.

In those days all cow's milk was to be regarded as contaminated, and breast milk, even the poorest, was at least safe.

The chief difficulty in breast feeding is the extreme variability in quantity and quality from week to week, day to day, and even feeding to feeding. Physical and nervous factors influencing the mother rob her of consistency. Milk from "contented mothers" would undoubtedly be superior; but what mother today can remain placidly at work making milk while from early morning till late at night she is being bombarded by upsetting influences? She quarrels with her husband at breakfast; the mail brings worrisome bills; mother-in-law comes in and tells her she is making a mess of raising the baby; the baby cries for hours. Contentment? Another present-day rarity. So at best we can know only, in a general way, how much and what kind of milk a baby is getting from the breast, while a formula is an accurate certainty.

There is little use in laboratory testing of breast milk. The best laboratory is the baby. If the baby does well, the food is suitable, and vice versa.

The hardest job is to feed infants who are on part breast and part supplementary, into which class most fall at one time or another.

It is quite reasonable to modify the old statement to read: "The mother's own milk is to be given a fair trial first, on the assumption that if it is of good quality and quantity, it is best for the baby." But, if after a reasonable trial, trouble continues, it need not be felt that the baby's best interests are being violated by substituting a formula of known and consistent quality and quantity, compounded to meet accurately the individual needs of the particular baby in question.

3875 Wilshire Boulevard.

Edwin F. Patton,
Los Angeles.

DIAGNOSIS AND TREATMENT OF NON-PROSTATIC OBSTRUCTIONS OF THE LOWER URINARY TRACT

The differential diagnosis and treatment of urinary retention due to obstructions of the lower urinary tract, from causes other than prostatic hypertrophy, are of great interest. Congenital obstructions of the lower urinary tract in the male, and the numerous types of bladder-neck obstructions occurring in women, have not been sufficiently emphasized by urologists and are usually neglected by the general profession. Recent investigations on the neurogenic bladder are most enlightening, as they point out the necessity of a careful urological study and envisage the clinical indications of medical treatment—the administration of acetyl b-methylcholin, and that of surgical intervention, resection of the presacral nerves.

In considering congenital obstruction of the lower urinary tract in the male, it has been observed that a greater number of these lesions are encountered on the autopsy table than are diagnosed during life. And, until greater coöperation is obtained on the part of the pediatrician and the internist, this condition will continue to exist. The "pot-bellied" child, possessing chronic pyuria and in whom the kidneys are enlarged, calls for a urological investigation. There is no doubt that congenital valves of the posterior urethra and its accompanying hypertrophied verumontanus cause back pressure, resulting in hydroureter and hydronephrosis. However, I share the opinion of others that in a certain number of cases the accompanying megalo ureter and hydronephrosis exist as part of the congenital anomaly, are present at birth, and sometimes require separate treatment. I feel that fibrosis of the vesical-neck occurs more frequently in children than is generally recognized. I recall a child in whom diagnosis of this condition was made at the age of seven. Treatment was refused and he returned ten years later suffering from repeated attacks of difficult urination, culminating in acute retention, and he was relieved by transurethral resection of the obstructing median bar. We observed an interesting case of acute urinary retention due to a stone in the prostatic urethra, and this patient was relieved by perineal section, preceded by cystotomy.

There are numerous pathological conditions causing obstruction of the bladder neck in the female. We are prone to underestimate the frequency of obstructive lesions in the female bladder neck. A number of these, consisting of cysts, polypi, tumors, and strictures, particularly when they are situated on the urethral side of the vesical neck, are best seen with the water-dilating type of cysto-urethroscope. It is well to employ this instrument as these lesions are sometimes overlooked with the open air urethroscope. I recall an interesting case of complete urinary retention in a woman due to an enormous hematocele, secondary to a necrosing carcinoma of the uterus. Bladder function was reëstablished with drainage of the hematocele by a stab wound in the cul-de-sac. We have seen a number of cases of retention resulting from stricture formation of the deep urethra due to radiation therapy for malignant pelvic growths. Rational treatment of the various obstructive lesions is based on the character and extent of the lesion. In certain types of papillomatous growths of the vesical neck, which recur after repeated fulguration, resection of the tumor mass by means of cutting current through the open bladder is our treatment of choice, and has been followed by cure in a selected number of cases.

The differential diagnosis between the neurogenic bladder and other obstructive lesions of the bladder neck calls for a careful examination, including a neurological examination, as well as a complete urological study, comprising cystoscopy, cystometry, etc. The characteristic cystoscopic picture of the neurogenic bladder, as seen in tabes dorsalis, has long been recognized. Koll was among the first to describe these findings and in 1911 he called attention to the ureteral orifice rigidity (condition similar to the Argyl-Robertson

pupil), the hypertrophy of the interureteric ligament and the fine trebeculations usually located in the lateral portion of the first and second bladder zones.

But, until recent years, our knowledge of the more precise nerve supply and physiology of the bladder was sadly deficient, and while the standard textbooks dealt independently with this subject, it remained for the French anatomists to conclude investigations which led to the application of surgical measures for the relief of certain nervous lesions affecting the bladder. In 1930 Pieri applied neurectomy for the treatment of incurable, painful, tubercular cystitis, and in more recent years Learmonth, Foulds, Van Duzen, and Cheetham, have extended its use to the various types of neurogenic bladder, pointing out its indications and contraindications. The extensive studies of Young and Wesson, Van Duzen and Looney, Trabucco, Dragonis, and others on the anatomical structure and physiology of the bladder have been most useful. The cystometric studies of Rose, Redewell, and of Lewis and Langworthy, enabled us to diagnose more accurately disturbances of the motor pathways of the nervous system supplying the bladder.

In dealing with the neurogenic bladder, a rational form of therapy should be used for the different lesions due to the various disturbances of vesical function. For the treatment of the hypofunctioning external sphincter, cold baths, plastic operation, etc., are advised. For hypofunction of the trigone muscle in which the detrusor action is normal adrenalin is used in order to stimulate the sympathetic nerves. In hyperfunction of the trigone with weakened detrusor muscles, presacral neurectomy is employed. In this condition, Learmonth has justly pointed out that the parasympathetic nervous innervation acts as a brake on vesical contraction and resection of these nerves releases the brake. An analysis of the results obtained by presacral neurectomy seem to point out that it is indicated in a selected group of cases of sympathetic parasympathetic unbalance, spasms of the internal sphincter and incurable painful lesions of the bladder.

The discovery, and the use of the choline derivatives for stimulation of the parasympathetic nerve supply of the bladder are most interesting. On the administration of 2.5 mg. hypodermically, one notes flushing of the face, sweating, salivation, increased pulse, fall in blood pressure, increased peristalsis, etc.; in other words, the phenomenon produced by parasympathetic stimulation, accompanied by vasodilatation. In using this drug in the treatment of neurogenic bladder, one finds that it had a favorable action in decreasing residual urine in patients with neurogenic dysfunction. We have observed favorable results from the administration of this drug, noting that it acted by stimulation of the parasympathetic nerve fibres, increasing the tone of the detrusor muscle, resulting in improved emptying of the bladder.

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ORIGINAL ARTICLES

BIRTH INJURIES TO BLADDER AND BOWEL*

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EARLIEST mention of vesicovaginal fistulae probably occurred in the Ebers Papyrus. Hippocrates (460-377 B. C.) spoke of the involuntary discharge of urine following childbirth, but made no mention of its cause. Guillimeau, in the sixteenth century, first attempted surgical union of complete tear, while Van Roonhuyse (1672) probably made the first surgical attempt to close a vesicovaginal fistula. Certainly these major birth injuries to the bladder and bowel have been recognized for a long time, long before any attention was paid to birth traumata of lesser degree. Intervening centuries have seen gradual additions to both prevention and remedy. The development of cesarean section, forceps, version and more significantly perhaps, prenatal care, are today important factors in preventing these parturitional accidents.

CLASSIFICATION OF BIRTH INJURIES TO BLADDER AND BOWEL

These may be conveniently divided into the major and minor, depending on amount of damage; thus:

1. *Major.*—Extensive tearing or avulsion of either bladder or bowel.

(*a*) Vesicovaginal fistula or other damage to the urinary tract sufficient to cause diversion of the urinary stream.

(*b*) Complete tear of the perineum (third degree), *i. e.*, lacerations involving the anal sphincter and/or rectum, resulting in fecal incontinence.

2. *Minor.*—The lesser injuries to the bladder and bowel fall into two groups, the immediate and remote. Among the former (immediate) are acute hemorrhoids; fissures and bladder paralysis. More important, however, are the remote sequelae, which include cystocele, rectocele, urinary incontinence (muscle paralysis) hemorrhoids, etc.

PREDISPOSING FACTORS

While the cause is obviously trauma, usually resulting from disproportion between the birth canal and fetus, certain predisposing factors should be recognized. These may be classified as follows:

Intrinsic. — Including underdevelopment and anomalies of generative tract, abnormal pelvis, large baby, malpresentation, tetanic contractions, distended bladder, etc.

Extrinsic. — Forced labor (pituitrin or other uterine stimulants). Operative manipulations (both necessary and unnecessary).

By recognizing these factors and instituting or planning proper treatment, serious damage is generally prevented. Certainly the incidence of serious

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Fig. 1.—Flaps outlined by dotted line.

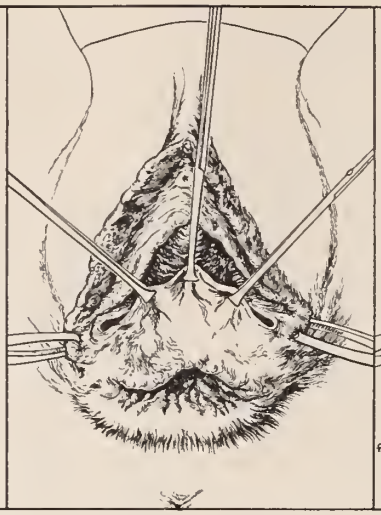

Fig. 2.—Flaps developed.

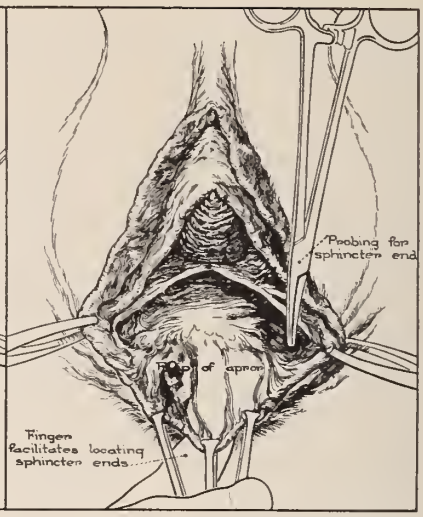

Fig. 3.—Probing for sphincter ends.

birth injury, particularly to the bowel, is such as to suggest either unfamiliarity with these predisposing causes or else abundant disregard for their potentialities as a source of trouble. Adequate prenatal care should reveal intrinsic factors likely to cause disproportion or excessive trauma, but prenatal care cannot compensate for understanding and judgment during delivery. The advisability of keeping the bladder and bowel empty during normal labor becomes an essential when operative delivery is planned. Failure to do so has resulted in bladder or bowel injuries which are sometimes incorrectly attributed to the use of forceps. Doubtless the unskilled use of instruments or other operative measures may lead to injury, but more often the primary cause lies elsewhere. Serious damage to the bladder is probably more often prevented than caused by the intelligent use of forceps. This is particularly true in excessively long labors, where the danger of pressure necrosis is very real.

One cannot consider prevention even in its most elementary form without mentioning episiotomy. The value of this operation in preventing birth injury need not be questioned. On the other hand, the average episiotomy probably does little to prevent remote sequelae to the bladder. When ordinarily done the occiput has already traversed the entire length of the anterior vaginal wall and the damage, if any, to this region has already occurred. In the average confinement, let this valuable procedure be justified by what it actually accomplishes, namely, shorter labor for the patient, conservation of time for the doctor, and a controlled, rather than an uncontrolled, perineotomy.

The minor injuries to bladder and bowel make a fascinating study. Remote sequelae in the form of urinary incontinence, though seldom serious, is nevertheless aggravating and its remedy far from simple. Time and space do not permit comprehensive consideration of all birth injuries and we shall, therefore, delimit the rest of this discussion to remedial measures for the more serious and less tolerable conditions, vesicovaginal fistula and complete perineal tears.

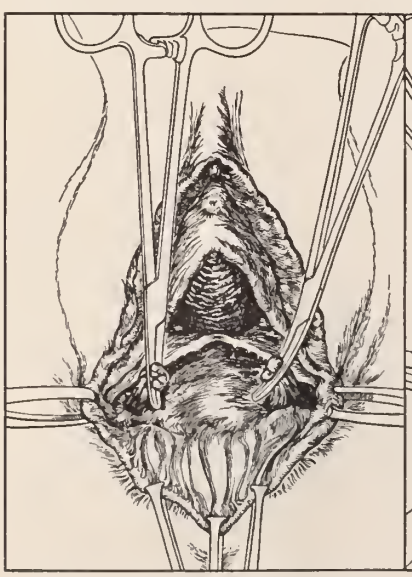

Fig. 4.—Sphincter ends grasped. Only the more recent cases permit such free isolation of sphincter ends.

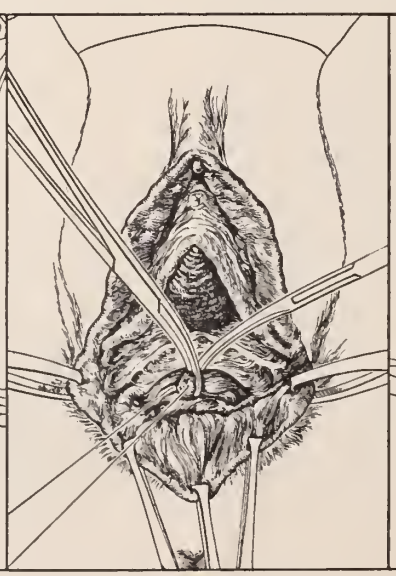

Fig. 5.—Approximation of sphincter ends.

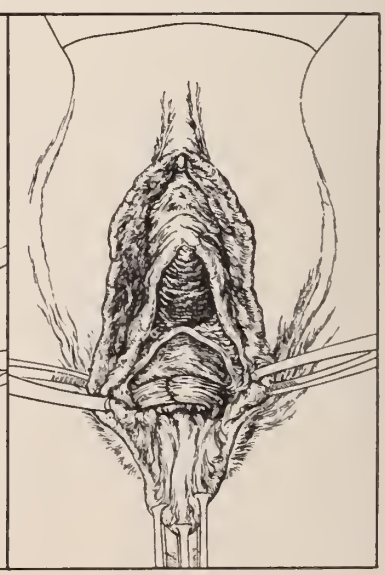

Fig. 6.—Sphincter sutured.

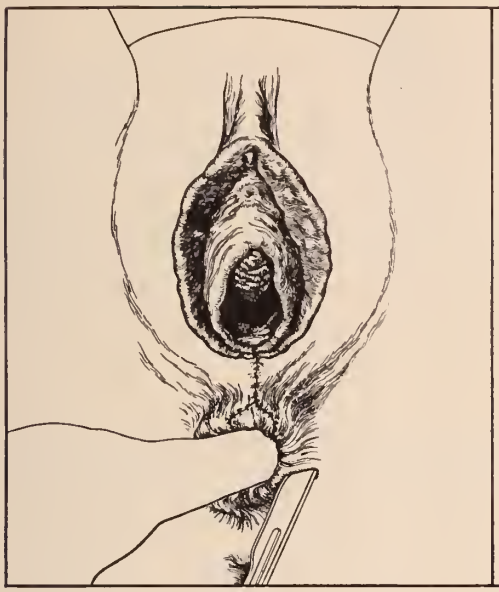

Fig. 7

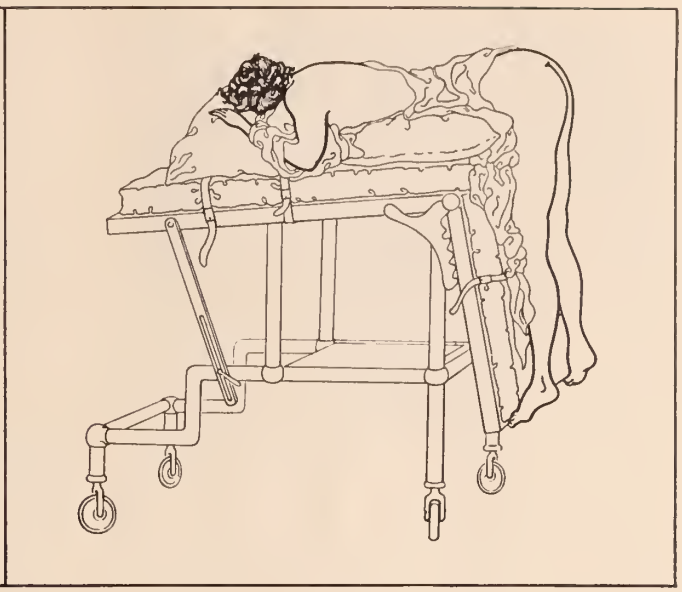

Fig. 8

Fig. 7.—Perineum reconstructed and sphincter incised subcutaneously in a posterior lateral quadrant. This permits the anteriorly united ends to heal without tension.
Fig. 8.—Inverted Trendelenburg position used in exposing and repairing vesicovaginal fistula.

Since palliation is seldom indicated the treatment becomes a surgical problem. While the physical pain associated with these lesions is not great, the mental anguish is such that few conditions cause greater misery and unhappiness. This, together with the fact that every attempt at repair resulting in failure renders the chances for healing at the time of subsequent operation much less likely, warrants caution in undertaking their repair. Those contemplating this type of surgery should become thoroughly familiar with the indications and contraindications of the many operative techniques available. The importance of preparation and thorough understanding of the basic principles underlying this type of surgery cannot be overemphasized. While preparation of the patient for operation depends on whether the lesion involves the bladder or bowel, the principles underlying surgery of this kind are fundamentally the same.

BLOOD SUPPLY

Fortunately the pelvic organs are normally quite vascular, so that interference with healing because of poor circulation is seldom noted except in badly scarred cases with excessive cicatrix formation. Each failure following repair leaves in its wake increased scarring and decreased vascularity. This accounts for the well-recognized difficulty of obtaining primary union in patients who have undergone many operations. Not only do the tissues heal poorly, but the infection hazard also becomes increasingly great because of this lack of circulation. This is not the only circulatory hazard, however, for too early operation or surgery attempted in the presence of inflammation is occasionally associated with excessive bleeding, even to the point of jeopardizing the result. Many repairs have been complicated in this way. One of our own fistula patients bled so profusely during operation that it was necessary to give a blood transfusion.

TENSION

A second fundamental principle to be observed in the management of these major injuries is the avoidance of excessive tension. In the repair of bladder fistulae this is best accomplished by means of remote incisions. In old, badly scarred fistulae the incision is made parallel to the vagina on either side and some distance lateral to the fistulous opening. In complete tears the sphincter is incised as shown.

INFECTION

Bugaboo of every operation, infection plays a less significant rôle in the healing of vesicovaginal fistulae than in complete tears. Immunity to organisms normally harbored in the vagina probably accounts for the few failures from this cause. Abundant evidence confirming this fact is to be found in the remarkable records established by such men as Wützer, Jobert, Simon, and Sims long before the days of Pasteur and Lister.

EXPOSURE

Generally speaking, this is no problem in complete perineal tears. In the case of bladder fistulae, however, one finds a variety of available approaches, three of which are worthy of consideration. Most common and, in our opinion, safest as well as easiest in the vast majority of cases, is the vaginal approach. This is best accomplished by placing the patient in the inverted Trendelenburg position, thus permitting the surgeon to look directly down upon the fistulous opening. The transvesical and transperitoneal avenues, undoubtedly useful, are, in our opinion, best reserved for those cases in whom the vaginal approach is for some reason unsatisfactory. That great and almost forgotten master in fistula surgery, Wützer, recognized the ease with which bladder fistulae could be seen by tipping the patient face down, and

Fig. 9.—View of fistula as seen with the patient in the inverted Trendelenburg position.

Fig. 10.—Frame utilized in the postoperative care of vesicovaginal fistula. There should be a sufficient opening in the frame underneath the abdomen to permit some sagging of the abdominal wall. Note that the repaired area is above the urine level in the bladder. This tends to minimize gross wetting.

devised a special bed for this purpose. Bozeman did the same, while Sims utilized the knee-chest position.

SUTURING

One cannot consider the fundamentals of repair without giving some attention to suture material and methods. In the first successful work of this character, metallic sutures were used. Sims popularized the use of silver wire and for many years this was standard procedure in our country. Early in the present century, however, the enthusiasm for absorbable material became so great as to result in its almost complete substitution for the metallic suture. Time has scarcely justified such complete change. While the modern suture is both bactericidal and bacteriostatic, desirable features provided they do not damage normal tissue, there is evidence to suggest that tissue injury has occurred from this source in the past, and undoubtedly accounted for some operative failures. Another point for emphasis in suturing is tissue approximation and not strangulation. Healing depends on not how tightly the sutures are tied, but on preparation of the tissues and their careful coaptation. Too much suturing is a common fault. While I do not use wire for these cases, I see no objection to its employment.

PREPARATION FOR OPERATION

Since there is no emergency involved, operation too soon after the accident is to be avoided.* Unless the tissues have regained their normal health, the likelihood of primary healing is remote and, consequently, every effort should be made to return the injured parts to normal health before attempting operation. This means general upbuilding, as well as local cleanliness and antisepsis. In general, operation should not be undertaken for at least three months after the injury occurred or a previous unsuccessful attempt at closure.

TECHNIQUE OF OPERATION

As previously pointed out, the operator should thoroughly familiarize himself with the various techniques available and select from these the procedure most suitable for his particular patient. The technique used by us in the repair of vesicovaginal fistulae and complete tears is shown in Figures 1 to 10.* It will be noted that good exposure of the bladder fistula is obtained by utilizing the inverted Trendelenburg position (Figures 8 and 9). Tension on tissues approximated is avoided by wide mobilization of the fistula or by means of lateral incisions.

In the case of complete tears, tension on the freshly united sphincter ends is avoided by cutting of the sphincter muscle in one of the posterior quadrants. In long-standing cases where there is difficulty in approximating the sphincter ends anteriorly, this posterior cutting may be performed first. In most cases, however, this is done after completion of the operation to which we have applied the name, "paradoxical repair."[1]

AFTER-CARE

Minor differences in after-care need not be discussed here; generally they have little influence on healing, and are merely an expression of the surgeon's likes and dislikes. We do, however, consider avoidance of gross wetting to the site of repair a valuable aid to healing in vesicovaginal fistula. To this end, the patient is placed on a frame, face down, as illustrated in Figure 10. By so doing the operative site remains above the urinary pool. I do not consider the prone position in bed without a frame a satisfactory substitute. Both fistulae and complete tear cases receive only liquid diet for the first ten days after operation, and no enemas or cathartics during this time. Otherwise the after-care is similar to that generally practiced for any average surgical case.

Much of the hopelessness surrounding serious major birth injuries to both bladder and bowel is unnecessary. Given thorough understanding of the problem involved, and judgment in selecting time and method of operation, a great deal can be done to restore the damaged generative, alimentary and urinary tracts. Every vesicovaginal fistula, and

* Excepting immediate repair.

* Figures 1 to 7 show the various steps in the author's Paradoxical Operation for Complete Tear.

1 Miller and Brown: Paradoxical Repair of Third Degree Tears, Am. J. Obst. and Gyn., Vol. 34, No. 2, p. 196 (Aug.), 1937.

every complete tear of the perineum should be looked upon as a major problem of the highest order. The possibilities of prevention are very real, and should everywhere be recognized by physicians practicing obstetrics. The suffering caused by these major birth injuries and their remedial difficulties call for meticulous attention to every detail of operative correction.

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USE DESTRUCTION IN THE HUMAN BODY*

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WITH respect to the topic under discussion, I think it is fair to say that we have been in the position of a physiographer, whose eyes are fixed upon earthquakes as the sole factor in topography.

Much has been written about joint mice, for example, the severe pathological process or the violent movement which may produce them, and the sudden painful effects which may accompany them. The fact that an innumerable number of joint mice present in diarthroses cause no symptoms, and that their number can be increased by movement, has been largely forgotten. Neither the production of these nor their presence becomes known to the individual, and except in so far as they were regarded as fragments of hyaline articular cartilage, supposedly contributing to the formation of synovia, no special significance was attached to them. Yet their existence is as significant in regard to the integrity of the articulations concerned as is that of erosion to topography. However, the microscopic and macroscopic particles contained in synovial fluid are not all derived from hyaline cartilage, but come from the capsules, ligaments and fibrocartilage as well, and under unusual conditions may arise from muscles. The presence in synovia, from diarthroses, of particles transitional in size between large incapacitating joint mice and minute microscopic particles, is a matter of special significance and was considered briefly elsewhere.[1] These particles, like the larger incapacitating joint mice, also have a traumatic origin, though not in the customary sense of the word, for they are the products of attrition.

Other bodily changes which I believe to have a similar origin are such phenomena as are discussed in the following:

SUPERFICIAL AND DEEP SYNOVIAL BURSAE

1. Fraying and destruction of the walls of the superficial and deep synovial bursae. These phenomena are commonest in such superficial bursae as those overlying the olecranon and the patella, as shown in Figures 3, 4, 5, 6,[1] and in such deep bursae as those about the shoulder, particularly the subdeltoid or subacromial, and the size of the frayed areas and the depth of the destruction vary greatly. As is well known, there may be a subacromial and a subdeltoid bursa in the same adult shoulder, but there may also be none. Since Black[2] found that the first bursa in this region develops subacromially, that designation would seem preferable. It is such also, because it is absent less rarely than the subdeltoid bursa; but since the latter portion of the single or combined bursae usually is considerably larger, the latter designation represents the usual conditions better.

It would be easy to arrange a progressive series from the well-preserved, smooth, normal bursa to one the entire thickness of the synovial wall of which was completely eroded from within, and the bounding connective tissues, muscles or tendons of which are frayed. These phenomena can be seen even in the bursa of the iliopsoas, as shown in the accompanying Figures 1 and 2, and on the deep surface of the obturator internus, as represented in Figure 3. Slight fraying of the walls of the synovial bursae is invariably present somewhere after the third decade of life, and can easily be recognized without the aid of a hand lens. Indeed, it could be detected in some bursae of a youth of thirteen who had not been unusually active, and in whom related disease could be excluded.

The existence of superimposed bursae, or their formation where only one is normally present, as in the region of the olecranon and in that of the great trochanter, furnishes conditions permitting the partial destruction, fasciculation and fraying of the interbursal walls, as shown in Figures 7[3] and 5.[1] What is surprising, at first, is that all this may happen without the presence of bursal content of any kind, save the usual amount of synovia, and small fragments of the shredded tissues, if the bursae have not enjoyed so long a period of rest that the particles have undergone comminution and lysis.

FRAYING OF ARTICULAR CAPSULES

2. Fraying on the inner surfaces of articular capsules, also referred to in 1915,[4] is the commonest change within articulations. As shown in the case of the capsule of the knee joint represented in Figure 21,[5] this fraying can be very pronounced in an otherwise perfectly normal joint. It is found where the articular capsules come into contact with the margins of the articular cartilages, and the common presence of these capsular fringes somewhere suggests that some of the synovial villi of surgical literature probably belong in this category. This fringing may be present over a considerable area of the inner surfaces of the articular capsules, and usually is more pronounced on the right side of the body, as illustrated in Figures 4 and 5. It often is extremely marked in the radiocarpal articulation, as represented in Figure 20,[5] and is commonly present at the margins of the plica mucosa of the knee. Broader but exceedingly thin capsular tags with frayed margins, the detachment of which would yield free bodies akin to those referred to above, frequently form a part of these fringes.

ARTICULAR CAPSULE DEFECTS

3. In addition to fringes within and without articular capsules, the latter may contain small and large defects. These occur most frequently in the shoulder, the acromioclavicular and the hip joints.

* From the Department of Anatomy, Stanford University. Guest Speaker paper. Read before the Industrial Medicine and Surgery Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.

but they are encountered also at the lateral malleolus, beneath the peroneal tendons and on the plantar surfaces of the first and fifth metatarsophalangeal articulations, as shown in Figures 6 and 7. In these two cases the subcutaneous bursae communicated with the underlying tendon sheaths and the respective articular capsules.

The acromioclavicular capsules also may possess defects below, as reported in 1922,[6] even when the respective humeroscapular capsule is imperforate. Contrary to what I had at first concluded from specimens containing large defects in the superior portion of the humeroscapular articulation, the former are produced more commonly from within by contact with the inferior articular margin of the distal extremity of the clavicle even when the latter is normal in all respects, and they may present a striking appearance, as shown in Figure 8, from above, or as in Figure 16, from below.

Surprisingly large defects may be present in the superior thicker portion of the humeroscapular capsule, as illustrated in Figures 4, 5, and 6,[3] even when the very thin dorsal and inferior portions are intact. They are commonest medial to the greater tuberosity in the region of the supraspinatus tendon, but occur also between the latter and the tendons of the subscapularis and infraspinatus even though the entire width of the tendon of the supraspinatus, even if not its entire thickness, is intact, as represented in Figures 8[6] and 3.[7] In extreme cases, however, the place occupied by this tendon, that of the adjacent portion of the infraspinatus, and that of the tuberosital portion of the subscapularis with the intervening portions of the capsule, may be occupied by a single large defect permitting contact between the humeral head and tuberosities and the deltoid. Defects in the anterior aspect of the capsule of the shoulder joint apparently result from contact with the coracoid, and those in the upper portion from contact with the acromion and clavicle.

DESTRUCTION OF LIGAMENTS

4. The destruction of ligaments. That articular ligaments, even such as the superior and middle glenohumeral and the coracohumeral, must be divided during the formation of large defects in the related portions of the capsules, is self-evident. However, the round ligament of the femur also may be divided or detached at either end, and frayed or be destroyed, except perhaps for some small remnant on the head or in the acetabular fossa, as represented in Figures 9 and 10.

MUSCLE FRAYING

5. There may also be fraying of muscles from movable contact with each other, and from such contact with other structures through defects in articular capsules. Marked fraying of the deep surface of the deltoid after destruction of a considerable portion of the floor of the bursa and the underlying articular capsule, and of the tendon of the supraspinatus, also occurs. It is not surprising that the inner surface of the deltoid may become frayed very seriously, as represented in Figure 11, and that a considerable portion of this muscle may be completely destroyed. Indeed, all that portion of the belly of the muscle overlying the lateral part of the humeral head and the tuberosities may be absent, and represented only by a thin connective tissue membrane, as shown in Figures 12 and 13. Rarely, fraying is met also upon some of the muscles of the forearm, as represented in Figure 1.[7]

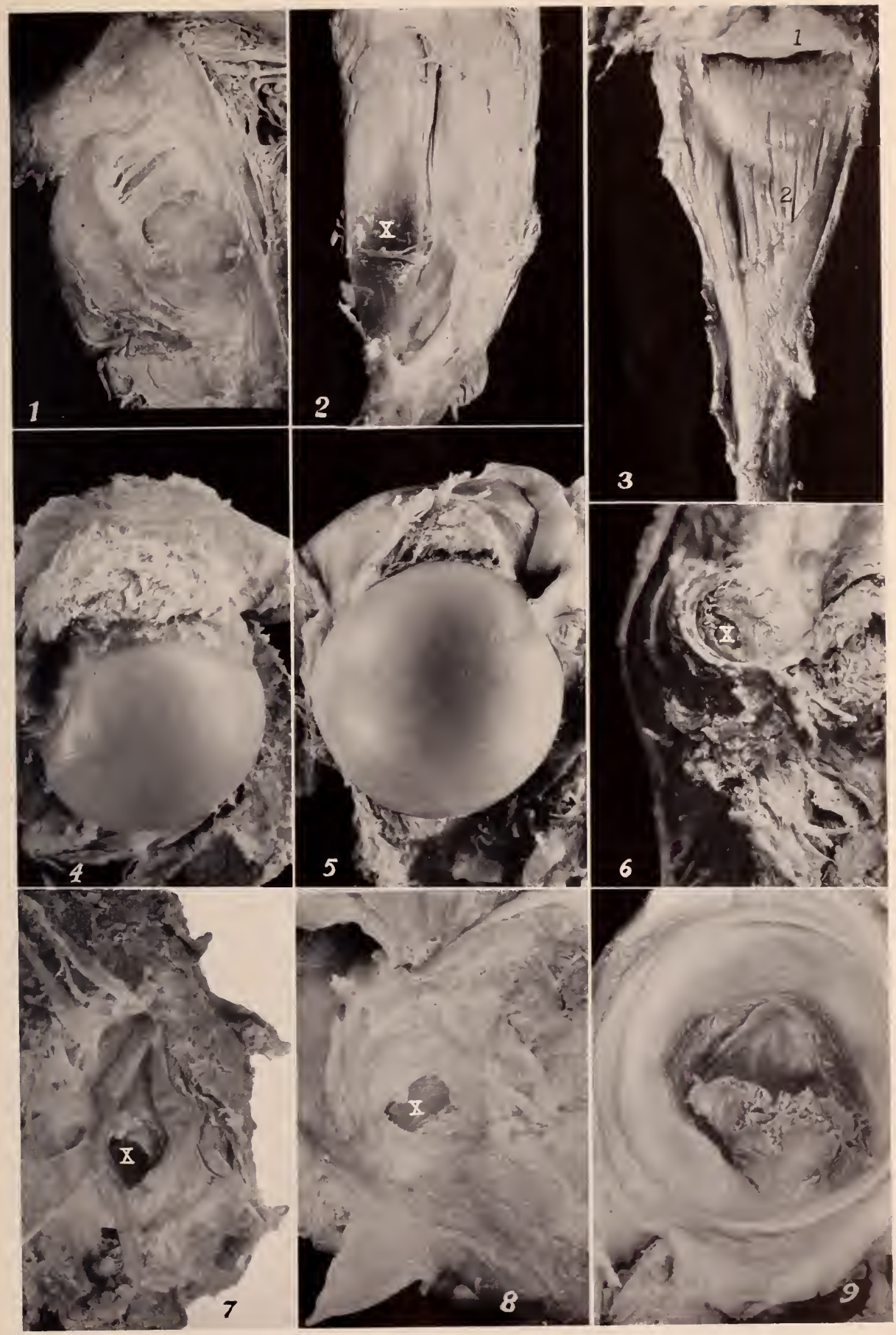
TENDONS

6. Fraying and partial or total division of tendons. Fraying may be present on both surfaces of the tendons of the supraspinatus and subscapularis, on the deep surface of that of the infraspinatus, and the triceps and biceps brachii near their distal attachments. It is met with also on the common flexor and extensor and other tendons of the hand, in those of both the long and short peronei, in the region of the lateral malleolus, and also in the tendon of the long peroneus where, as Edwards[8] showed, it plays upon a facet of the cuboid, except in about 2 per cent of the cases. As represented in Figure 10,[7] even this tendon may be worn deeply and be greatly weakened for a distance of about a centimeter and a half.

Marked fraying of the deep surface of the tendon of the iliopsoas always was confined to the region in which the articular capsule was defective. Although these defects used to be regarded as developmental, work in this and other laboratories has shown that they are not present in the newborn. Sometimes, when the destruction of the floor of the iliopsoas bursa was marked, there was some indication of fraying on the deep surface of the overlying portion of the tendon, but this fraying always was confined to the synovial and tendon sheaths, and did not affect the tendon fibers. The disproportionate extent of the destruction in the walls of the bursa, shown in Figures 1 and 2, can be ascribed to differences in the relations of the bursal walls. As stated in 1922,[6] the defect in the capsule of the hip joint usually is due to wear from contact with the cartilaginous margin of the femoral head and not with the tendon of the iliopsoas.

The tendons most commonly and most seriously frayed are those of the supraspinatus and the long tendon of the brachial biceps, both of which frequently are completely divided. There usually is but slight evidence of lengthening of the long tendon of the biceps distal to the humeral tuberosities. This clearly indicates that the sound tendon was not ruptured acutely and retracted by the muscle. This is implied also by the apparent absence of atrophy in that belly, in consequence of lessened use while the tendon was being divided and while it was obtaining a firm secondary attachment. It also is very significant that remnants of the intra-articular portions of the divided tendons are seldom found. This does not imply, however, that a tendon greatly weakened by wear may not yield suddenly under the active pull of the muscle belly or some passive strains to which it may be subjected, or that remnants of the proximal fragment may not survive for some time.

The long tendon of the biceps may be frayed from contact with the capsular sling, represented at *X* in Figure 14, the walls of the intertubercular part of a normal bicipital sulcus, the coracoacromial ligament, the cartilaginous margin of the humeral



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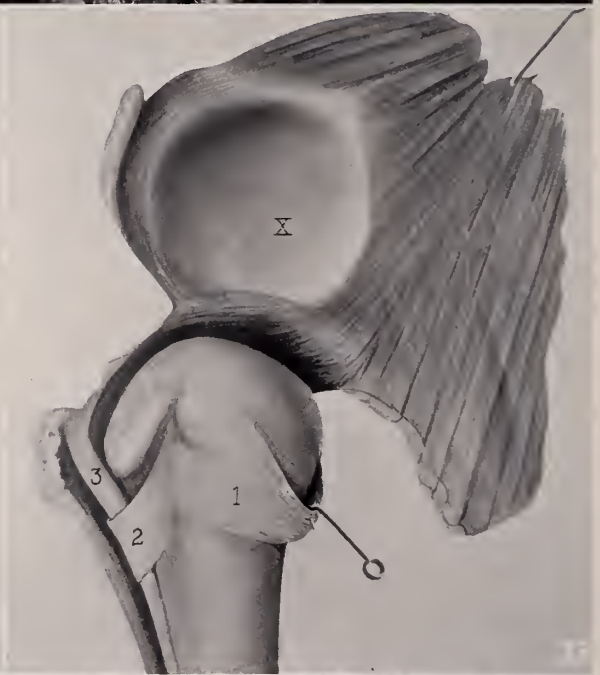

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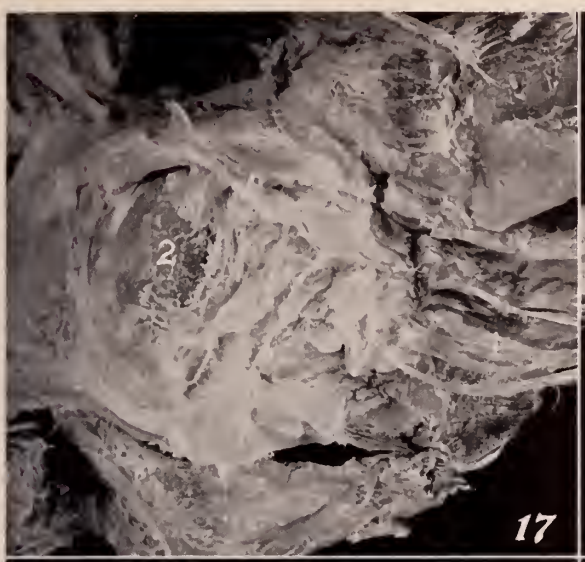

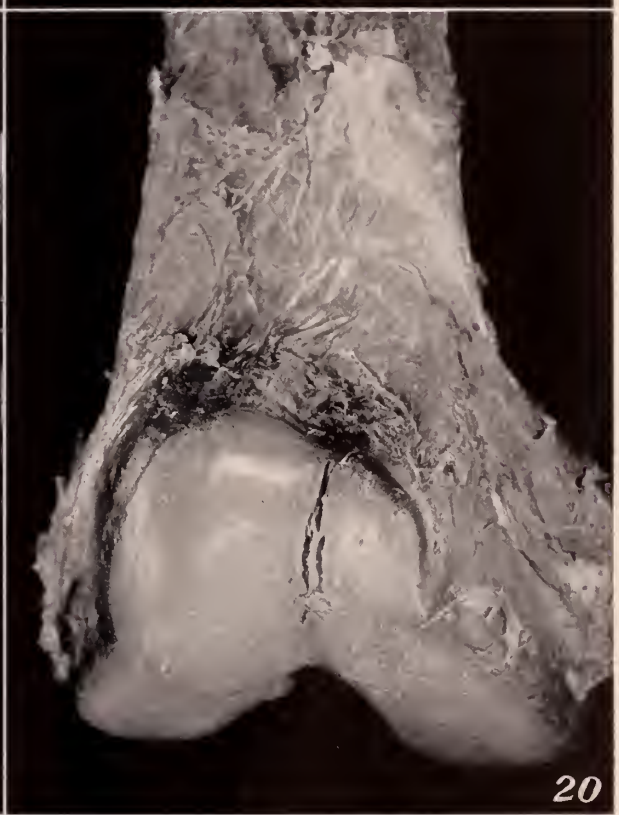

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head, the supratubercular ridge (see Meyer [9]), the capsular roof of the intertubercular sulcus, the lesser tuberosity upon yielding of the capsular sling, and with the tendon of the subscapularis. Its upper surface may also be worn by contact with the acromion and the greater tuberosity, through capsular defects, but I no longer regard this as an important factor in the division of this tendon.

The process of attrition may, to be sure, be hastened by osteophytic reaction of the traumatized periosteum in any region of contact, but it often is effected wholly without it. Division of the tendon seldom results in more than slight elongation of the brachial portion, because the synovial reflection distal to the tuberosities undergoes hypertrophy from the strains to which it is subjected during the gradual slight retraction of the tendon while slowly undergoing dislocation and division. The synovial reflection usually hypertrophies laterally and medially and, as shown in Fig. 15,[3] this may be so marked that it is difficult, if not impossible, to distinguish the acquired attachment from the tendon itself by its outward appearance alone. The fact that the new attachment of the tendon sometimes is hollow for a short distance near its proximal extremity is excellent evidence in support of the assumed process of secondary attachment. This assumption is supported also by the frequent widening of the new attachment, by its location and by the fact that one sometimes finds minor bands extending upward from the divided tendon to the articular capsule, which, no doubt, represent the hypertrophic superficial portion (or the roof) of the synovial sheath of the tendon. The main secondary attachment usually is located just distal to the lesser tuberosity, but it may involve the floor of the sulcus and also the diaphysis near the greater tuberosity.

Among scores of cases of this kind I have never seen a free retracted distal stump of the long tendon. Fraying and partial or complete division of it and secondary attachment may occur without the presence of any defects in the overlying articular capsule or marked fraying of the walls of the subdeltoid bursa, although the tendons of the subscapularis and the supra- and infraspinatus may be frayed and fasciculated. The tendon of the subscapularis sometimes is in this condition on both its superficial and deep surfaces.

The tendon of the supraspinatus, on the other hand, is more frequently and more seriously affected on its superficial surface, and that of the infraspinatus on its deep surface, as represented in Figure 19.[5] The fraying on the superficial surface near the tuberosital attachment of the tendon of the supraspinatus may be from contact with a wholly normal undersurface of the acromial process; but when due to this cause it can include only about an inch of the tendon. The fasciculation and wear on the superficial surface of the more medial portion of this tendon and muscle always were due to contact with the deep surface of the distal extremity of the clavicle through a perforated acromioclavicular articulation, as illustrated in Figures 16 and 19, or with an exostosis on this extremity of the clavicle, acting through an intact

(a) (b)

Fig. 23.—(a) Left half of the cervical and upper thoracic vertebral column with fissuring of the intervertebral discs in the lower cervical region, accompanied by some lipping on the ventral margins of the bodies of some of the vertebrae. (b) A similar view of the lower thoracic and sacral spinal column, showing similar conditions.

acromioclavicular capsule, as was the case of the clavicle shown in Figure 18. The fraying and fasciculation in these two tendons extend for a distance of four inches from the tuberosity in case of the latter, and three inches in case of the former. The differences in the appearances of the lesions are due to the difference between the agents by which they were effected: an uncovered clavicular extremity in the first instance and a capsule-covered exostosis on it in the second.

DISLOCATION OF TENDONS

7. The gradual dislocation of tendons. Instead of being frayed, the long tendon of the biceps may be dislocated ventrally (forward) to a greater or lesser extent, so that it comes to lie in a capsular sling, and if not divided by attrition before that can happen, also upon the tendon of the subscapularis. However, except in extreme cases, it is found *in situ* in the intertubercular sulcus, distal to the tuberosities. The occasional absence of fraying on the deep or superficial surface, or along the ventral (or anterior) and dorsal (or posterior) margins of the tendon may be accounted for by the fact that the underlying and overlying capsule forms a yielding and cushioning sling which moves upon the tendon and protects it against contact with the relatively rough underlying bone. However, as indicated by facts previously mentioned, this does not imply that the attrition between soft parts does not result in fraying.

As emphasized elsewhere,[9] the dislocation of this tendon often is facilitated by the presence of

a supratubercular ridge, and whenever the attachment of the underlying portion of the tendinous sling to the humeral head yields in the region ventral (anterior) and proximal to the intertubercular sulcus, the tendon may move forward upon the lesser tuberosity, and finally also upon the tendon of the subscapularis, as represented in Figures 4,[8] 4,[9] and the accompanying Figure 15. In extreme cases of dislocation, the long tendon has not only left the intertubercular portion of the bicipital sulcus, but also the distal portion for a centimeter or two, being prevented from further displacement distally by the absence of oblique traction, by its relation to the tendon of the pectoralis major which often encloses it, and by a strong aponeurotic triangular expansion which may extend upward directly medial to the long tendon fusing with its fascial covering.

Aside from dislocation of the plantar sesamoids and the tendon of the long flexor of the first toe in hallux valgus, the well-known voluntary and involuntary partial, medial dislocation of the tendons of the long and short peronei, and the relatively minor displacement of the tendon of the quadriceps extensor accompanying marked changes in the configuration of the patella and the medial femoral condyles from cartilaginous and osseous destruction, I know of nothing at all comparable to the spontaneous dislocation seen so frequently in case of the long tendon of the biceps.

DESTRUCTION OF FIBROCARTILAGES

8. Destruction of fibrocartilages. Fraying of the inner margins of the glenoid fibrocartilages is practically universal in later years and marked fraying very common then. The genual menisci usually show less fraying of the inner margins, although their deep surfaces may be affected from contact with the hyaline cartilage of the tibial condyles, in spite of the relatively restricted range of movement between them. Besides this fraying, the presence of defects in such articular discs as those of the temperomandibular, the sterno- and acromioclavicular, and the ulnocarpal joints, not only is common, but the acromioclavicular disc usually —not always present—is perforated or largely destroyed. The defect in the ulnar articular disc usually begins in the form of a dorsovolar slit which becomes more rounded as it is enlarged in a radioulnar dirction, and the process of attrition may end in complete destruction of this fibrocartilage.

DESTRUCTION OF HYALINE ARTICULAR CARTILAGES

9. Destruction of hyaline articular cartilages begins upon the surface, not in the depth, and the first thing to suffer is the superficial membranoid layer. Portions of this thin layer several square centimeters in area not infrequently still have a proximal attachment, as shown in Figures 6 and 7.[5] This destruction may continue to the stage of complete denudation, with resultant bony contacts and eburnation. There are, indeed, only a few interosseous diarthroses in which complete destruction of the articular cartilages has not been observed, but the most perplexing lesion is the more or less isolated fissuring such as represented in the intercondylar regions of the femur as shown in Figure 20. Although it is common, especially here and on the patella, I am not certain as to its exact genesis.

10. Fissuring of the intervertebral discs. Clefts, such as represented in Figures 23-a and 23-b and studied especially by Schmorl and his associates,[10] are commonly present in bodies from the later decades, such as used by us for dissection. Since the earliest evidences of fissuring are said to appear in the region of the nucleus pulposus by the seventh year of life, one should not be surprised to find an extension of the process in later decades. The fissuring is mainly transverse, however, and often passes through the middle of the discs. One can usually see some evidence of the process in the third, although the discs may be but slightly affected in the seventh decade. The phenomenon is most frequent and most extensive in places of greatest motion: the lower cervical and the thoracolumbar and lumbosacral regions. It is striking that this correspondence is so good, and surprising that the fissuring often is so complete, and that nothing of the discs may remain except small remnants on the surfaces of the bodies of the coapted vertebra. Such fissuring, attrition and lysis must, to be sure, seriously impair the stability of the spinal column, and must necessarily result in considerable approximation of the bodies of the vertebrae.

Since no two intervertebral discs are identical in structure, and since they are not subjected to identical stresses, one should expect some variation in the location and direction of the fissuring; and this is the case. It is very significant, indeed, that these horizontal fissures not infrequently bisect the discs near the middle of their thickness, where the cleavage stresses are greatest and the nutritive conditions the poorest. Since these fissures, which Luschka regarded as true articulations, very commonly contain fibrocartilaginous fragments, and since the coapted surfaces of the fissured discs are frayed, there can be no doubt that motion is a factor in their production and in the consequent reduction of the discs, and that, to this extent at least, the process in the discs is akin to the other changes here considered. There is much reason to believe that the fissuring is largely, if not wholly, due to a breakdown of the structural materials of which the discs are composed and that it can be adequately explained upon mechanical grounds alone.

EROSION OF BONE

11. Erosion of bone. Whenever coapted areas of the articular cartilages are worn off, enabling the underlying compactae to come into movable contact with each other, they become strengthened by sclerosis of the underlying spongiosa, and are polished and worn, producing the so-called eburnation. Since the compactae on articular surfaces are normally very thin, they would soon be worn through except for the accompanying sclerosis, in response to increasing pressures and friction, while the overlying cartilages are being thinned. It often is forgotten that there also is destruction of bone under these conditions and that the coapted bones may be destroyed to a depth of centimeters in such locations as the knee and hip joints. Even the

radial and ulnar styloids may be destroyed and the underlying portions of the diaphyses of the respective bones deeply worn away and highly polished, through none other than strictly usual movements.

Sclerosis and polishing, commonly called eburnation, and the accompanying erosion, frequently are present also upon the odontoid and the coapted surface of the atlas; between the pisiform and triquetral; the hamate and the lunate; the lunate and the scaphoid and multiangulars; upon the humeral head, in the greater tuberosity, the acromion and glenoid cavity; the patella and the femoral and tibial condyles; the head of the radius and the capitellum, and even upon the dorsal surfaces of the upper ribs from contact with the vertebral borders of the scapulae. This erosion and eburnation may be limited to extremely small areas, but occur wherever bony contacts are possible, provided motion is sufficiently repeated, although the range may be very slight. It is not uncommon to find erosion and eburnation unaccompanied by other bony changes, although slight periosteal reaction may be present at the periphery of the area of erosion of the bones that are being reduced in size through attrition. The process not infrequently is seen also upon heteroplastic bone and on the opposed, overriding, ununited ends of fractured bones. Since the phenomenon is so commonly present, and since the shape of such small bones as the carpals may be completely changed by the reduction of their volume to less than half the normal by attrition, it has always perplexed me that those familiar with these things find it hard to believe that soft parts, such as capsules, ligaments, tendons, and muscles, etc., are affected similarly by the same forces.

RUPTURE OF TENDONS

12. Rupture of tendons. Since structures weakened by partial destruction are not so strong as they were before, it follows that they may rupture suddenly even under relatively moderate strains, but that is quite a different matter than acute rupture of sound tendons.

There was no evidence that any of the fissuring or any of the instances of division of the ligamentum teres of the femur or those of the tendons of the biceps and the supraspinatus, were produced by past dislocations; and since relatively weak fasciculi of these tendons and of the capsules often remain unruptured, apparently for years if not for decades, it is unlikely that unusual, momentary forces were involved in their production. The tendon fasciculi which remained often were so slender that only a weak contraction of the respective muscles could have ruptured them.

FORMATION OF BONY EXCRESCENCES

13. The formation of bony excrescences. Whenever the periosteum is irritated by structures which move upon it, the formation of exostoses can be expected. They frequently are present in a minor form and sometimes in a marked degree, in regions undergoing denudation. Not infrequently, however, there is no indication of any bony change in areas in which great destruction of soft parts or of bone has occurred. The relation of the rate of denudation to the formation of exostoses, in response to mechanical irritation of the periosteum, should need no emphasis.

COMMENT

It is self-evident that such lesions as here considered must have been produced from the time that men and women drew water and hewed wood with sufficient persistence. Hence they must have been seen by the very earliest human anatomists. It would be interesting to consider their production and significance in detail and to examine the historical aspects of the subject, but that is precluded here. I must add, however, that this inventory of the chronic kinetic lesions which often are so pronounced in the later decades of life, is based solely upon material which bore no evidences of pathological processes related to them. I realize that anatomists are not pathologists, but they are not, therefore, ignorant of the gross bodily changes due to accident and disease, and although the number of bodies dissected is relatively small, there are no autopsies comparable in detail to those done in the dissecting room. Here each body can be kept under observation as long as desired, and everything can be examined *ad libitum* both grossly and microscopically. Anyone in doubt regarding the lesions here reported can quickly resolve his doubts by examining the material himself. He need not depend upon what he can learn through small incisions made in the operating or autopsy room.

It should be evident that important articular structures may be weakened or severed by the attrition accompanying ordinary routine movements in the course of daily life. The ultimate effects can, to be sure, be modified and intensified by emergency and extraordinary uses and also by accident and disease, but it is not the greatness of the range but the frequency of the motion that is the important factor. As illustrated in Figures 21 and 22, the effects of attrition are related to handedness and particularly common and pronounced in the bodies of laborers such as carpenters, miners, sailors, charwomen, and housewives. The bodies of those dead from chronic tuberculosis or other long-standing disease usually bore slight evidences of them unless the individual had not been greatly incapacitated by his affliction.

None of the frayed structures bore any evidences of *restitutio ad integrum*. Healing, whenever possible, can occur only when the processes of repair exceed those of destruction. This holds for the acme of life as well as for its decline, and were it not so the affected structures should have been restored to a pristine condition long before death of the affected individuals, which usually occurred after relatively long inactivity and sojourn in an institution.

It always has seemed to me that even very pronounced destruction probably can occur from attrition without severe pain if the rate of erosion be sufficiently slow. Indeed, it is not improbable that the affected individuals mainly become aware of the process when some unusual strain partially detaches or ruptures structures undergoing denudation, or when sudden rupture or fracture

finally occurs. This does not imply, to be sure, that infection may not supervene and that its effects could not rapidly manifest themselves.

IN CONCLUSION

Although man must always have been aware of and must also have understood the effect of friction upon his hair, nails, skin, and teeth, and have experienced intertrigo, this is not true regarding the internal evidences of attrition. The latter not only have been largely overlooked by our profession, but seem to tax the credulity of some of us even today. This is due to the fact that anatomists alone have full opportunity to observe them. The rank and file of physicians who merely have done a dissection of one side of a body of one kind or another have entirely too narrow a basis for judgment. Pathologists feel fortunate if they may open the abdomen, thorax and skull, or occasionally a joint, and most orthopedic surgeons only have such additional knowledge as can be obtained through small incisions upon the living or a fleeting visit to a dissecting room. Moreover, it is an old assumption that human joints are frictionless and that hyaline cartilages do not wear. It often is assumed that slight injuries done to structures coapted intimately during movements are repaired quickly during the customary periodic rests. Although this might be the case in such highly vascular structures as synovial bursae and articular capsules in the young, it can hardly apply to such structures as the cartilages, both hyaline and fibro-, for they are practically avascular. And although healing may occur in an avascular structure such as the cornea, regeneration does not take place even in it, although bathed constantly by a fluid medium. In any case, whether repair exceeds wear depends upon the relative rates of the two processes and only secondarily upon the age, the vascularity, the structure and the nutrition of the organ in question, and healing cannot occur in avascular, hyalinized, separated tags of capsules, ligaments, and tendons.

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LEGENDS

Fig. 1.—The ventral surface of the capsule of the right hip joint, containing defects with frayed margins, in the deep wall of the psoas bursa.

Fig. 2.—The deep surface of the respective illopsoas tendon, showing slight fraying of the coapted synovial surface at (X).

Fig. 3.—The inferior surface (1) of a lesser ischiatic incision, and the coapted surface (2) of the right obturator internus muscle, showing considerable local destruction of the synovial and tendon sheaths, and some fasciculation of the tendon.

Fig. 4.—A right supraspinatus tendon (above) reflected laterally and viewed from below, to show the marked fraying of the synovial membrane, the articular capsule and the undersurface of the tendon from contact with the wholly normal and smooth cartilaginous margin of the head of the humerus.

Fig. 5.—A similar view of the paired tendon from the same body, showing a smaller area and a lesser degree of wear (above). The proximally divided long tendon of the biceps is also reflected.

Fig. 6.—A defect (X) in the plantar portion of the capsule of the first metatarsophalangeal articulation in a left foot, with moderate hallux valgus.

Fig. 7.—A similar defect (X) in the same portion of the articular capsule of the left fifth metatarsophalangeal articulation. The long flexor tendon was drawn medially.

Fig. 8.—A defect (X) in the inferior portion of a right acromioclavicular capsule, viewed from above, after removal of the clavicle, the inferior margin of the distal extremity of which was normal.

Fig. 9.—A right acetabulum, with a proximally detached and frayed round ligament.

Fig. 10.—The head of the accompanying femur with a remnant of the round ligament still attached and slight fraying of the articular cartilage.

Fig. 11.—The deep surface of a right deltoid with frayed sheath and muscle fasciculi, from contact with the humeral head and tuberosities, from a case with destruction of the upper portion of the articular capsule and the included tendon of the supraspinatus.

Fig. 12.—A right shoulder represented from the side, with the deltoid exposed, revealing a large central area (X) composed only of a thin, nonmuscular membrane.

Fig. 13.—The same shoulder drawn with the deltoid reflected, to show the membranous area (X) from within, also revealing complete destruction of the upper portion of the articular capsule with its contained tendons, and maximal dislocation forward of the tendon of the long head. The upper margins of what remains of the capsule are indicated at (1) and (2), and the tendon of the long head at (3).

Fig. 14.—A picture of a lateral view of a right humerus, upon which the long tendon of the biceps had been dislocated forward considerably, showing the opened capsular sling, the deep portion (X) of which had retained its proximal attachment to the head and neck, but had lost it over the lesser tuberosity.

Fig. 15.—A lateral view (drawing) of a left humeroscapular articulation with the deltoid (1) cut away to reveal a large defect in the upper portion of the articular capsule, a markedly dislocated long tendon (2), its greatly hypertrophied lateral synovial reflection (3), the remnants of the upper portion of the tendon of the subscapularis (4), the fasciculated residual attached portion of this tendon (5), the roughened upper surface of the lesser tuberosity (6), the slightly retracted portion of the synovial sheath, beneath which the long tendon originally lay (7), and the thinned, free, crescentic lateral border (8) of the capsule and the tendon of the supraspinatus.

Fig. 16.—An acromioclavicular articulation seen from below, revealing a defect (X) in the inferior portion of the capsule and (3) part of the inferior margin of the distal extremity of the clavicle.

Fig. 17.—A supraspinatus tendon seen from above, showing coarse fasciculation of the muscle and tendon (1) and the tuberosital region (2) of the same tendon, with considerable superficial fraying. The latter was produced by contact with the undersurface of the acromion, and the former by the capsule-covered exostosis (X, Figure 18) which pressed against the tendon and muscle of the supraspinatus.

Fig. 18.—The distal extremity of the said right clavicle, seen from below, showing the exostosis (X), which was intracapsular.

Fig. 19.—The upper surface of the supraspinatus tendon and muscle (belonging with clavicle shown in Figure 16), with a markedly frayed, finely fascicular portion at (1), from contact with the practically normal distal extremity of the clavicle shown at 3 in Figure 16. There, also, is some fraying of the distal portion of this supraspinatus tendon from contact with the inferior surface of the acromion. The opened bicipital sulcus is seen from above at (2), the reflected roof of the subdeltoid bursa at (4), and the cut surface of the deltoid at (5).

Fig. 20.—Fissuring of the hyaline articular cartilage on the distal extremity of a right femur with slight fraying of the former.

Fig. 21.—A pair of biceps tendons illustrating the greater wear in the right (upper) tendon in right-handed persons.

Fig. 22.—Another pair of similar tendons emphasizing the same thing with the right tendon below.

THE PLACE OF THE PARTIAL GASTRECTOMY AND DUODENECTOMY IN THE SURGERY OF DUODENAL ULCER*

By Ernst Gehrels, M.D.
San Francisco

Discussion *by Emile Holman, M.D., San Francisco; John Homer Woolsey, M.D., Woodland; John Hunt Shephard, M.D., San Jose.*

I THINK it is correct to state that dissatisfaction with the late results following operation for duodenal ulcer has been increasing in recent years in this country. This impression one may derive from a study of the current literature, as well as from visits to medical and surgical wards of large hospitals where many recurrences after the currently used operations, pyloroplasty or gastro-enterostomy, can be seen. So much so that experienced medical observers are becoming very skeptical of any and all surgery for peptic ulcers.

RECENT LITERATURE

Recent publications by the Mayo Clinic show that the results of pyloroplasty have been disappointing. Balfour[3] has stated recently that symptomatic results following the Judd operation are less satisfactory than the results after gastro-enterostomy, that recurrence of duodenal ulcer after pyloroplasty is not uncommon. Duodenal ulcers seem to form easily and frequently in the suture line of pyloroplasty. Another objection to the Judd operation is its very limited field. It applies only to small ulcers of the anterior duodenal wall. Horsley, himself, reported fourteen recurrences out of fifty-six of his pyloroplasties. If the results of gastro-enterostomy were really as good as the statistics of Balfour[3] and a few others would indicate, there would be no need for any change in our surgical approach. We may look with envy on the reports of some clinics which record from 85 to 90 per cent of perfect cures after simple gastro-enterostomy. The figures vary from 50 to 90 per cent, if one takes in a wide variety of authors. The average is only 70 per cent cures. Most of us have immediate good results, but subsequently we have such a high percentage of failures that we have become discouraged. Among the 30 per cent failures of gastro-enterostomy, a considerable number are of a very serious nature, being marginal ulcers. The figures on marginal ulcer vary between 3 and 20 per cent; 5 per cent is a very conservative estimate. I, myself, have had three marginal ulcers out of ten gastro-enterostomies.

ADVANTAGES OF THE RADICAL OPERATION

In presenting the case for the radical operation of partial gastrectomy and duodenectomy, the following arguments seem fundamentally sound. (1) The radical resection removes the ulcer itself and the ulcer-bearing area. The anatomical fact should not be disregarded that ulcers occur almost exclusively in the lesser curvature of the stomach, and in the first portion of the duodenum. These parts are evidently places of lesser resistance to the ulcer-forming disease. (2) The pylorus muscle is removed completely and thereby pylorospasm eliminated. (3) Reduction of hyperacidity to the point of relative achlorhydria is more regularly achieved by the resection than by any other procedure. It is necessary to remove the entire antrum of the stomach. The antrum is clearly differentiated from the fundus of the stomach by its microscopic anatomy. In the antrum are secreted the hormones which activate the secretion of hydrochloric acid. Partial gastrectomy and duodenectomy are, therefore, a radical attack on the important fundamental factors of the ulcer-forming disease. This theoretical superiority of the radical operation is confirmed by surgical statistics.

ULCER PROBLEM STATISTICS

However confusing and conflicting surgical statistics on the ulcer problem are, a few broad facts stand out. The statistics of partial gastrectomy, as reported from many different clinics, show a great uniformity of good results, around 90 per cent cures. The results reported from gastro-enterostomy show a wide disparity, ranging between 50 and 90 per cent cures. While the majority of surgeons, in this country at least, are still favoring the conservative operations of gastro-enterostomy and pyloroplasty, there can also be noticed an increasing trend toward the radical operation. There are many more of these being performed now than there were ten years ago. In the publications of some of the leaders in this field, like Lahey,[16] we can find the growing dissatisfaction with pyloroplasty and gastro-enterostomy, and the gradually growing trend to resection. However, it is true that the great majority are still in favor of conservative operations. The problem is far from being settled.

WHY RADICAL OPERATION IS NOT GENERALLY ADOPTED

One may say correctly that practically everybody recognizes the superiority of the radical operation in achieving results, but the obstacle to the general adoption of this operation is the greater mortality. The surgical technique has improved so that the mortality of resection in experienced hands should not be higher than 5 per cent, even as low as 2 or 3 per cent, provided that good judgment is used in the selection of cases. This is my firm personal conviction, which has been strengthened by a growing experience, now twenty years, with resection of gastric and duodenal ulcers. I did my first resections for duodenal ulcer at Payr's Clinic in 1917. Since that time I approach the operation for ulcer with the intention of operating radically, if it is possible to do so. Those who are familiar with partial gastrectomy from cancer cases alone have an entirely wrong picture. Resection is safe to a surprising degree. In ulcer you are usually dealing with patients who are young or in early middle age, individuals usually of the wiry, skinny type. They stand these extensive operations very well. There should be no shock. All abdominal complications as postoperative peritonitis, leakage, postoperative hemorrhage, mechanical disturbances, like gastric ileus, are nowa-

* Read before the General Surgery Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2-6, 1937.

CHART 1.—*Mortality of Radical Gastrectomy and Duodenectomy*

	Gastric Ulcer Number of Cases	Mortality Per Cent	Duodenal Ulcer	Mortality Per Cent	Cancer	Mortality Per Cent
Eiselsberg	1,261	3.8	937	4.3	568	19
Finsterer			429	2.3	193	18
Konjetzny			106	0		
Starlinger			104	1		
Strauss			221	5.4		

days of the greatest rarity. But all these complications and dangers that I have just mentioned cannot be entirely avoided, and will be responsible for a certain mortality which, however, is quite small. I am more afraid of pulmonary complications than any other. There it is important to segregate the good surgical risk from the bad.

If the mortality can be kept within 3 to 5 per cent, or about two to three times that of the conservative operation, we are justified in doing resection, especially if we consider the late dangers that follow gastro-enterostomy or pyloroplasty. After these conservative operations, serious postoperative bleeding or perforation of an unremoved ulcer occur occasionally. Marginal ulcers after gastro-enterostomy are more common, I think, than is generally assumed. As I mentioned, I had three jejunal ulcers out of ten gastro-enterostomies.

SOME RECENT STATISTICS

Surgical technique in this field improves with experience. In 1922, Haberer published a series of seventy-six successive resections without a death. Now a series of one hundred or more cases without a fatality is not uncommon (Konjetzny, Koennecke, Demel, etc.).

Disappointments after the radical operation have also been reported, but they are not nearly as frequent as the disappointments after gastro-enterostomy or pyloroplasty. I point here to the large collective review of 24,500 cases of partial gastrectomy and duodenectomy as reported by Starlinger to the 1931 German Surgical Congress.

You see that the actual recurrence of ulcer after radical operation is less than one per cent, but besides that, from 5 to 10 per cent of patients have various complaints, most of which can be cured by some dietary adjustment. In my own experience I have had no recurrence of ulcer so far, nor any recurrence of digestive disturbance.

INDICATIONS FOR THE RADICAL OPERATION

This brings us to the indications for the radical operation, as I see them; those more widely recognized are:

1. Recurrence of ulcer after a preliminary conservative operation. If gastro-enterostomy or pyloroplasty has been unsuccessful, I do not think it good surgery to perform a second conservative operation. Recurrence or reactivity shows that this particular patient belongs in the group with increased ulcer susceptibility. If surgery is again considered because the patient is disabled or bleeding, the second operation should be the radical partial gastrectomy and duodenectomy. This same argument applies to the patient who develops marginal ulcers after gastro-enterostomy. Just unhooking the gastro-enterostomy is not sufficient. Lahey [15] has had recurrences of gastric or duodenal ulcer in 40 per cent of the cases where he had only taken down the gastro-enterostomy for marginal ulcer. For marginal ulcer a radical block resection of stomach, duodenum and the gastro-enterostomy with adjoining jejunum should be done. In unusually difficult cases this may be done in two stages: (*a*) Unhooking the gastro-enterostomy. (*b*) Doing the partial gastrectomy at a later date.

2. The second group, the hemorrhagic ulcers, present a difficult problem. Practically everybody agrees that one should never operate for the first massive hemorrhage. Most of these cases will recover quickly, and may be safely segregated from another group who will not improve and have

CHART 2.—*Recurrent Ulcer After Partial Gastrectomy and Duodenectomy for Gastric and Duodenal Ulcer**

	In Eighty-five Hospitals There Were Performed	Billroth I	Billroth II with Antecolic Gastro-jejunostomy and Entero-entero Anastomosis	Billroth II with Retrocolic Gastro-jejunostomy	Total
		7,789	2,492	14,273	24,554
Recurrent Ulcer	In duodenum	60			60
	In stomach	11		5	16
	Marginal		12	77	89
	Total	71	12	82	165
	Percentage	0.9	0.5	0.6	0.7

* From Starlinger, Jejunal Ulcer-Ergebnisse, XXV, 1932, page 429.

repeated bloody vomiting and bloody diarrhea. These patients should be transfused. If, however, they continue to bleed after the transfusion—if a second transfusion becomes necessary within two or three days—these cases, in my opinion, should be transfused, followed by immediate operation. The shortest and least hazardous procedure which will stop the bleeding should be done, but cauterization of the ulcer does not meet this purpose. The bleeding will recur. Transfixion of the ulcer, which is usually situated in the posterior wall, will seldom be technically possible because of friable tissue. In many of these cases, unfortunately, nothing short of partial duodenectomy, including resection of the ulcer, can be relied upon to stop the bleeding. These views conform in every way with the conclusions reached in a recent publication of Allen and Benedict [1] covering about seven hundred cases of bleeding ulcer from the Massachusetts General Hospital. Also F. Lahey has expressed himself in favor of operating when repeated hemorrhages occur.

Undoubtedly these cases are one of the most difficult problems in abdominal surgery. Fortunately, the great majority of acute massive hemorrhages from duodenal ulcer do not require surgery. It is surprising that even on these exsanguinated patients an extensive operation can be done with reasonable assurance. I recently operated a case of this kind with only 22 per cent hemoglobin, without having any difficulty. Massive transfusion is done before and after the operation.

We have been speaking of emergency operation for bleeding. In chronic cases of hemorrhage it has even become more recognized that the radical operation should be done if possible. Pyloroplasty usually cannot deal efficiently with the bleeding ulcer which is on the posterior wall of the duodenum penetrating into the pancreas. Recurrence of bleeding after gastro-enterostomy is at least 20 per cent.

Another group of cases we have to consider is the young male patient with active ulcer and hyperacidity. In dealing with this group of young patients with very active ulcers, we should be very hesitant in advising any surgery. They should be treated medically over a long period. The greatest conservatism in our indications should apply, but, in my opinion, if operating we should seriously consider a radical operation.

These young patients with very active duodenal ulcers are in great danger of developing an ulcer of the jejunum, if a gastro-enterostomy is performed. Pyloroplasty would be a better primary operation than gastro-enterostomy. As I have pointed out, reports on pyloroplasty have been disappointing, even in the hands of the Mayo Clinic as Balfour [3] has recently published. We notice a tendency in several recent publications, for instance those of Lahey [15] and Roscoe Graham,[7] to select a more radical operation for these cases as a primary procedure.

OTHER CONSIDERATIONS

Whether we operate radically or not should be somewhat decided by the patient's outlook. I explain to him the greater dangers of resection, but also point out to him that disappointments are more common after conservative operation. Most of these patients are tired of dieting. They want to be operated on in order to get away from the diet. There is no question that after radical operation we can do away with almost all dietary restrictions after a few months, which we cannot do after gastro-enterostomy or pyloroplasty.

Naturally the age, general health, and the constitution of the patient have a great influence on one's surgical planning. In older patients marginal ulcers do not occur as often, and gastro-enterostomy can be done more safely. Also a Finney gastro-duodenectomy may be done more successfully than in a young patient. It is difficult to state a definite age limit; but beyond forty-five or fifty, greater conservatism and very careful selection of the good surgical risks is essential. I am especially careful in looking at the patient's teeth and pharynx. If he is a very heavy smoker, and has a good deal of phlegm or any chronic catarrhal condition, this is a contraindication against operation.

LOCAL FINDINGS

The ultimate decision is made at the time of operation, depending on the local findings. There are some cases where resection becomes too hazardous to be permissible with good judgment. However, these cases, which in the literature are called "unresectable ulcers," become less frequent the more experience one has. Von Haberer [25] formerly had 17 per cent, now 6 per cent; Finsterer [6] 14 per cent. Enderlen found that 18 per cent of the duodenal ulcers he operated were unresectable. Practically all anterior duodenal ulcers and all gastric ulcers can be resected with great assurance. The unresectable group are usually ulcers of the posterior wall of the duodenum. These difficult cases require good judgment. There are rare situations where a large inflammatory tumor will not yield to careful dissection. An operation done too soon after a covered perforation may be very difficult. Therefore, one should avoid operating in a stage of acute activity. There are also situations where after an extensive preliminary dissection, one will still be in doubt whether one can safely get away from dangerous structures, like the common duct and pancreatic duct. In these cases it is the better part of valor not to attempt the radical operation, but to declare the case one of "unresectable ulcer."

The question is what to do if we find such an unresectable ulcer. The Judd [10] pyloroplasty naturally is not feasible in this type of case. I rarely do a Finney gastro-duodenostomy, which may be quite difficult under these circumstances and would create very difficult anatomical conditions if a later operation for unhealed or recurrent duodenal ulcer becomes necessary. Usually I have done a gastro-enterostomy under which the duodenal ulcer will often heal. If later a marginal ulcer should form, a partial duodenectomy will often be secondarily possible in connection with the radical operation of marginal ulcer. If there is an unresectable ulcer

that has been bleeding, I do a Finsterer [6] resection for exclusion, and I use the Finsterer operation* only for this one indication of unresectable bleeding ulcer.

TECHNICAL PHASES OF THE RADICAL OPERATION

Now a few words on the technical side of the radical operation. About one-half of the stomach should be removed. I usually do the retrocolic, short-loop type of Polya operation. However, in cases where I do not feel absolutely safe about the closure of the duodenal stump I prefer the long loop, antecolic Polya with entero-entero anastomosis. This anastomosis acts as a safety valve and prevents any fluid pressure against the duodenal stump.

There is a widely held prejudice against this long-loop type of Polya operation in gastric and duodenal ulcer. The theoretical argument is that marginal ulcers will form more easily because the entero-entero anastomosis deflects the alkaline content of the duodenum and exposes the jejunum to an undiluted gastric juice. This argument does not hold true if a sufficient amount of the stomach is resected to produce relative anacidity. This has been definitely proved by Starlinger's [21] large statistics. There were nearly 2,500 antecolic Billroth II with .5 per cent recurrent ulcers and 14,200 retrocolic Billroth II operations with .6 per cent recurrence, demonstrating that there is no difference. I do not use the Billroth I operation.

I will confine my further technical remarks to the technically most difficult problem, the resection for ulcer of the posterior wall of the duodenum. The essential thing here is the preliminary dissection, which consists of the following steps: (1) The gastrocolic ligament is divided sufficiently far to allow the posterior wall of the duodenum to be inspected. This is very important. It prevents a mistake that is easily made, of finding an easily resectable anterior ulcer and going ahead with a partial gastrectomy, and finally, when it is too late, to discover that there is also a difficult posterior ulcer. (2) A complete unfolding of the duodenum is done by freeing it from its usually extensive adhesions and scar retraction by sharp dissection from the upper border and lateral border. It is surprising how often a situation which seemed forbidding at first glance will appear feasible after this preliminary dissection. (3) The common duct is exposed by sharp or blunt dissection at the upper border of the duodenum. Now the palpating finger can estimate the distance between the edge of the duodenal ulcer and the common duct. On this estimation depends the safe closure of the duodenal stump.

After these three preliminary steps the decision is made whether to go ahead with the radical operation or to do only a gastro-enterostomy. Exceedingly good judgment at this point will have a decided influence on one's mortality.

One should be fully conscious of the greater responsibility one assumes when selecting a radical instead of a more conservative operation for a benign disease. Only the surgeon who knows the late results to be expected from his operation, and who is well able to estimate the operative risk, can make the decision between the more radical and conservative operation. His policy will also somewhat depend on his attitude toward the ulcer problem, and upon his technique and training.

SUMMARY

1. Surgery on duodenal ulcers should only be done on very strict indications, and if correct medical treatment has been tried repeatedly without success.

2. One can notice a growing dissatisfaction with gastro-enterostomy as well as pyloroplasty among many experienced surgeons. The late results of radical partial gastrectomy and duodenectomy are much better than those of the conservative operations.

3. It is my personal conviction that it is possible to adopt the more radical operation for duodenal ulcer as a primary operation, without having a prohibitive mortality.

4. The more widely recognized indications for partial gastrectomy and duodenectomy are: (*a*) Recurrent ulcer, including marginal ulcer. (*b*) Hemorrhagic ulcer. (*c*) Active ulcer in young, especially male, patients where there is evidence of increased susceptibility to recurring ulceration.

5. At the operation extremely good judgment is necessary in deciding whether a resection can be done without endangering important structures. If in doubt, one should give up the radical operation while there is still time, and do a conservative operation instead. This will be more rare as experience increases.

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*The Finsterer operation is a subtotal resection of the stomach without removing the duodenal ulcer nor, as a rule, excising the pylorus. Removal of the pylorus in this type of case is often not possible. Not enough healthy duodenal wall is left after excision of the pylorus to effect a safe closure of the duodenal stump. That is the disadvantage of the Finsterer operation, that it leaves not only the diseased duodenum, but also a fairly large pyloric stump of the stomach. The advantage of the Finsterer operation over gastro-enterostomy in a hemorrhagic ulcer is that it puts the duodenal area completely at rest; the duodenal ulcer will heal. The extensive gastrectomy of the Finsterer operation reduces the gastric secretions and thereby protects somewhat against marginal ulcer.

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DISCUSSION

Emile Holman, M.D. (Stanford University Medical School, San Francisco).—The growing dissatisfaction with pyloroplasty and gastro-enterostomy for peptic ulcer is an index of the poor results obtained. Only recently, a marginal ulcer has occurred in what has always seemed an ideal situation for the performance of a simple posterior gastro-enterostomy, *i. e.,* complete cicatricial stenosis of the duodenum in a 68-year-old man with a prolonged story of indigestion and recent vomiting of everything eaten. In another instance, bleeding from a marginal ulcer occurred twenty-five years after a gastro-enterostomy, which had performed perfectly up to that time.

It must be recognized, of course, that in doing a gastro-enterostomy we do not alter the fundamental situation one iota. The same factors exist that produced the duodenal ulcer originally, and logically one should expect these same factors to produce an ulcer of the even more susceptible jejunal wall. Hence, the various attempts to alter surgically the presumed factors responsible for the ulceration, in the first place, have naturally led to partial resection, primarily to reduce acidity. A few clinical experiences, and much experimental evidence, indicate, however, that even after the most radical resection of the stomach, regeneration of the acid cells is sufficient in time to reëstablish a normal acidity. Unalloyed enthusiasm for partial resection must, therefore, await additional experiences and late results.

Gastro-enterostomy for bleeding ulcers is obviously inadequate. Complete diversion of the gastro-intestinal stream must be effected, if bleeding is to be controlled. Similarly, deeply penetrating ulcers of the duodenum must be completely circumvented, an effect not achieved by gastro-enterostomy. Hence, partial resection is the operation of choice for these two contingencies in contradistinction to gastro-enterostomy. The stark truth remains that every effort should be made first to cure peptic ulceration by medical rather than by surgical means, and to reserve surgery for perforating, penetrating, obstructing, and obstinately bleeding ulcers. In such a medical regimen, adequate and abundant vitamin intake is essential.

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John Homer Woolsey, M.D. (Woodland Clinic, Woodland).—The surgical treatment of duodenal ulcer has been carried out now slightly over twenty-five years, and from those experiences have come ideas in place of theories. Doctor Gehrels has said, "there is dissatisfaction with the late results." In my opinion, that dissatisfaction is based upon several factors, namely, unwise judgment when to employ surgical treatment; too extensive surgery in the acute stage; too traumatic a type of surgery; failure to carry out the required technique of gastro-intestinal surgery, and poor adaptation of the surgical procedure to the problem at hand.

Personally, I cannot subscribe to the more radical surgery for duodenal ulcer in more than 30 per cent of the instances, for it does carry a high mortality except in the most experienced hands, and less radical procedures give equally as satisfactory results, such as a Finney pyloroplasty or a direct gastro-duodenostomy of the Billroth I type or a properly placed and performed gastrojejunostomy.

Any body ulcer put at rest will heal, and if there is not the danger of a malignant change it can safely be left to normal healing processes. Duodenal ulcers fit these requirements, and when put at rest heal kindly, so that resection with the increased dangers therefrom, from my experience, is unnecessary. If the patient is desperately ill from a recurrent, bleeding, chronic, duodenal ulcer, a chain suture of the bed of the ulcer will control the hemorrhage, and a less shocking operative procedure, as a gastrojejunostomy or Devine two-stage resection, to put the area at rest is, in my opinion, better judgment.

For duodenal ulcers there are only three proved reasons for a partial gastric resection, namely, obstruction from stenosis, to obtain a greater decrease of the gastric acidity and to secure a more complete rest for the ulcer. A partial gastric resection, therefore, is, except for the instance of obstruction, indicated chiefly in the individual with a very active sympathetic nervous system and a persisting hyperacidity.

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John Hunt Shephard, M.D. (Medico-Dental Building, San Jose).—Doctor Gehrels' article clearly emphasizes the fact that the surgical treatment of duodenal ulcer is not limited to any one type of operation or technical procedure, and one's ability to individualize the procedure to be followed in each case will be reflected in his results.

There is much that we do not know concerning duodenal ulcer, and our treatment of it, both medical and surgical, is more or less empirical, even though it is based somewhat on theoretical grounds. Our results, apart from our mortality, are only relative. To be greatly influenced for or against any certain procedure by comparing statistics is fallacious, for the variables in their compilation are so great that results are not comparable.

Let us not fail to recognize that the treatment of duodenal ulcer is both a medical and a surgical problem, perhaps more medical than surgical, and that the more attention we give to the patient's coexisting pathological lesions, emotional and nervous burdens, and the correction of vicious habits of eating and living, the better will we serve our patient.

THE TUBERCULIN TEST IN THE SCHOOLS OF SAN FRANCISCO

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and
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Discussion *by Robert A. Peers, M.D., Colfax; Reginald H. Smart, M.D., Los Angeles; Harold G. Trimble, M.D., Oakland.*

SINCE 1932 there has been a permanent program, under the direction of the San Francisco Department of Public Health, for the prevention and early diagnosis of tuberculosis in school children. The method of approach has been largely through the use of the tuberculin test, followed by additional physical and fluoroscopic examinations and by x-ray films of those showing positive reactions. No other large group of the urban population is so easily available for testing with tuberculin, or so satisfactorily educated in all methods of prevention of tuberculosis as the school group.

At the beginning of the term a certain amount of publicity is given to the program in the particular school whose students are to be tested. The school physician presents the problem to the Parent-Teachers' Association, the Mothers' Clubs, and the student assemblage. Occasionally, moving pictures, prepared by the National Tuberculosis Association, are shown. Following these procedures, the consent slips are distributed to the students by the public health nurse. These slips request the parents' consent to the tuberculin test.

TUBERCULIN TESTS USED

The type of test used is the intracutaneous Mantoux of 1 : 1000 dilution. From the observations in this study this dilution is sufficiently strong to indicate from the test the active case. There are, however, exceptions, these being chiefly the far-advanced cases, which should be discovered by routine physical examination. Furthermore, this dilution is not too strong to give a severe reaction. It was selected because with school children only one test of the student is usually possible, and repeated tests with strong dilutions would only tend to stimulate objections from not only parents and school authorities, but from the students as well.

The P. P. D. (Purified Derivative of Long) test was used during one school term and discarded because many negative reactions occurred in known positive cases, and in the stronger dilution the skin reactions were too severe.

The school personnel, especially the principals, the vice-principals, and the physical education instructors, are of the greatest assistance. No other group that contacts school children can compare in influence accordingly. The tuberculin testing program in schools, therefore, is profoundly affected by the amount of interest and enthusiasm of these school officials. Should the parent be able to consult a private physician for x-ray films and further medical observation, the child is so referred. Those unable to pay are kept under the scrutiny and supervision of the Department of Health.

The school tuberculin testing should follow the completion of the preliminary details. The reading of the skin reaction is made forty-eight hours later by the physician who performed the test, and the results are recorded by the Opie-McPhedran millimeter scale as of 1, 2, 3, and 4 plus. For comparative purposes a 1 : 1000 dilution of Old Tuberculin is used, and the resultant reaction is recorded in millimeters.

ROENTGEN-RAY FILMS

X-ray films are taken of the chests of all students who give positive reactions. The negative reactors are not retested with stronger dilutions unless there is a history of contact with an open case, or there are suggestive symptoms or signs demonstrated at the time of the physical examination. The x-ray films of the chest consist of one flat anterior-posterior film. These films are read and classified according to the Opie-McPhedran plan by members of the Health Department staff, who have had special training in this work.

CLASSIFICATION OF X-RAY FILMS

The classification of the x-ray films is tentative, and the classification used is:

I. Adult type tuberculosis.
   - (*a*) Possibly active.
   - (*b*) Possibly obsolete.

II. Childhood type tuberculosis.
   - (*a*) Tracheobronchial lymph glands uncalcified.
   - (*b*) Tracheobronchial lymph glands partially calcified.
   - (*c*) Tracheobronchial lymph glands partially calcified with healed parenchymal focus.
   - (*d*) Tracheobronchial lymph glands calcified.

INTERPRETATION OF FINDINGS

Experience has shown that the degree of reaction (1, 2, 3, or 4 plus) has little significance in regard to the amount of demonstrable pathology. For instance, it has long been known that advanced cases may fail to show any reaction to the tuberculin test. Also, there has frequently been noted that the one plus reaction or the doubtful positive may show the presence of the disease in the x-ray film. Likewise, the markedly positive reaction may have negative x-ray findings. Nevertheless, a four-plus reaction, along with a negative physical examination and negative x-ray film, especially as to calcification and increased hilar shadows, should call for intensive epidemiologic investigation to determine the source of infection. The parent and child are instructed concerning the significance of the test, all available and known contacts are examined where possible, and a request for serial films is usually made. During the five-year period of tuberculin testing of students in the schools of San Francisco, it is significant to note that in those students showing four-plus reactions, there has never been a failure to demonstrate a progressive deposit of calcium in the tracheobronchial lymph glands. Moreover, in certain cases, such findings have resulted in acute pulmonary tuberculosis of the adult type, developing within a few months. The absence of demonstrable calcification in the tracheobronchial lymph glands, in those showing the positive tuberculin reaction, should serve as a warning that these cases be closely followed. In fact, the student showing a markedly positive tuberculin test in the absence of clinical symptoms or signs, and negative x-ray findings, should be kept under strict observation. The interpretation of such findings is quite difficult. It may be due to some allergic response in the individual to the infection or a direct manifestation of healing of the lesions, which may be indicated by the calcification demonstrable in the tracheobronchial lymph glands. The healed focus is found most frequently in the lower right lobe in or near the axillary line, and it is not always demonstrable, nor is its presence necessary in order that a diagnosis of childhood type of tuberculosis be made.

The use of the fluoroscope is of value in ruling out the presence of active lesions in contacts and

TABLE 1.—*School Program for Tuberculosis Case Finding*
San Francisco Department of Public Health: Bureau of Child Hygiene

	1932-33	1933-34	1934-35	1935-36	1936-37	Total
Total tuberculin tests	1,584	3,609	3,926	5,329	9,109	23,557
Negative	1,000	2,203	2,811	3,782	6,088	15,884
Not read	26	137	21	116	106	406
One plus	270	358	292	459	971	2,350
Two plus	150	491	510	494	849	2,494
Three plus	130	409	257	377	784	1,957
Four plus	8	11	35	101	311	466
Total positive	558	1,269	1,094	1,431	2,915	7,267
Per cent positive	35.8%	36.5%	28.0%	27.4%	32.4%	31.4%
Cases hospitalized or excluded from school under medical care	11	32	22	50	49	164
Classification after x-rays I	128	127	99	98	217	669
Classification after x-rays II	109	238	293	672	597	1,909
Classification after x-rays III	81	324	199	438	371	1,413
Classification after x-rays .....Unclass.		65	45	201	275	586
Total x-rays	318	754	636	1,409	1,460	4,577
Attendance at conferences	292	1,185	1,503	2,283	3,002	8,265

also in demonstrating the adult type tuberculosis. It is valuable, too, in distinguishing active calcification in the tracheobronchial lymph glands. A permanent record, obtainable only in the x-ray film, and which can be used for comparative purposes, should always be required. The value of the screen examination would appear from these data to be definitely limited.

Along with the record of the tuberculin test and the x-ray classification, the student and his parents are invited to a conference with the school physician. A careful history, with special reference to age, race, contact, previous diseases and all suggestive symptoms is obtained, and a physical examination made.

CLASSIFICATION OF DISEASE PROCESS

From all the facts available, a "final" classification of the disease is made. No directions for treatment are given, since our objectives are diagnostic, preventive, and educational. The classification is made in order to facilitate the handling of large numbers of cases, and in order that parent, teacher, and school nurse may be informed in regard to the necessary regulation of the child's life.

The final classifications as used include adult tuberculosis, active type—which calls for immediate exclusion from school—examination of all contacts, and arrangement for suitable care in hospital or at home; and childhood type tuberculosis; and, if considered clinically active, hospitalization is indicated. No stool examinations or attempts to determine the presence of acid-fast organisms in stomach washings are performed.

Whenever indicated, a four-hour temperature record is kept of the student by the school nurse. The evidence of a continued low-grade fever calls for hospitalization. Other factors, such as progressive loss of weight, failure to gain, anorexia, irritability, adenopathy, etc., may call for exclusion from school and hospitalization.

The great majority of the students with positive reactions to the tuberculin test, however, are allowed to remain in school. This may not be the ideal procedure, but at present there is no better solution. For the elementary grades in San Francisco, there are health schools and health classes where the students showing positive reactions can be segregated. The health-school program includes a long day at school with minor physical activity, the feeding of milk in the mid-morning, a hot lunch at noon, prolonged rest periods, and a modified educational program.

CLASSIFICATION FOR POSITIVE REACTORS

For the students showing positive reactions and remaining in their regular schools, the classification is as follows:

Class I. No restrictions of activities are indicated for a group of healthy students in whom the physical signs are negative, and the contact with infection either broken or casual. The significance of the test and the physical findings have been fully explained to the parent and a yearly physical examination advised.

Class II. In this class there is included a group of students in whom the findings are indicative of a possible active infectious process. These students have restrictions imposed in regard to competitive games and are frequently reëxamined.

Class III. This group of students is definitely classified as suspicious, and they quite often become active clinical cases while under observation. For these students there are ordered rest periods, and no physical exercise, and they are reëxamined at frequent intervals. Likewise, the students in this group are immediately referred for medical care in the clinic or to the private physician.

COMMENT

An important phase of this work has been a more general education as to the communicability of tuberculosis, inculcating in the mind of the public the idea of its prevention as a definite aim, and resulting in a wider spread of instruction on the subject of sound health habits, evidenced among the parents, teachers, and children themselves. One of the objectives to which we should look forward is the expansion of this program to include every school child so that he gets a tuberculin test on his entrance, and periodically until graduation. At the time of his first positive reaction his contact should be determined and eliminated. Such a program, although expensive, would not cost more than the present procedure of caring for chronic cases of tuberculosis over a period of ten or fifteen years at public expense.

The relation of childhood tuberculosis and the milk supply has been a source of study for many years by various investigators. It may be of interest to state that compulsory pasteurization commenced in San Francisco in December, 1912. Prior to this date, however, the flash method of pasteurization was used by two large dairies and shortly discarded for the holding method now in universal use. The present ordinance requiring that Grade "A" milk and Grade "A" cream be the produce of nonreacting tuberculin-tested cattle became effective August 1, 1933. This is in addition to generalized pasteurization of the entire milk and cream supply, the exception being certified milk, which represents an infinitesimal portion.

During the five-year period in which the tuberculin testing work has been done in the schools, a total of 23,557 school children have been tested, of whom 7,267, or 31.4 per cent, were positive. The per cent of positive reactors varies somewhat from year to year due to the fact that the program when first initiated was directed to schools thought to be most in need of the work. As was expected, a higher percentage, namely, 35.8 per cent, and 36.5 per cent, was found positive for the first two years, respectively. The third and fourth years the schools with children from the higher economic level were included, with a consequent falling off to 28 per cent, and 27.4 per cent. In 1936-1937, the program was enlarged considerably to include a true cross-section of the high school group. Although the tabulation of the degree of the skin reaction is kept from year to year, no conclusions may at present be drawn. It is hoped that at some future time these data will prove of value. The active cases, *i. e.*, those excluded from school under medical care or hospitalized, vary directly with the total number of tests. Classification after x-ray is, of course, not permanent, many children from Class III getting into Class II the following year, but for the most part Class III includes those under direct supervision of the school physicians, with check-ups at six-month intervals. The total number of x-rays falls short of the recorded positive reactors. Many children are followed up by their own physicians and, the x-ray program being continuous, there is a definite lag when contrasted with the actual testing program.

IN CONCLUSION

In addition to the early diagnosis of childhood tuberculosis, the outstanding result of the data presented in this paper is the removal from the schools of San Francisco of approximately fifty cases per year of active tuberculosis, either adult or childhood type.

This type of tuberculosis control or case finding, however, does not always lead to the discovery of the missed case in the home. Moreover, the general public should be continuously educated to seek medical advice upon the slightest suggestion of a pulmonary affection. The tuberculin test and the x-ray of the chest, particularly in certain age groups, are of primary importance, but such tests in the school must remain secondary to the essential epidemiology of tuberculosis, which of necessity must center on the recognition and the control from a public health standpoint of the early case and its contacts.

The rôle that the consumption of raw milk and its products from herds untested for tuberculosis plays in this economic, social and public health problem of the schools in any community must be of considerable moment. Therefore, investigation as to the type of the infecting organism should be encouraged by departments of public health.

101 Grove Street.

DISCUSSION

ROBERT A. PEERS, M.D. (Colfax).—It has taken a long time for the medical profession to realize that tuberculosis is basically an infectious disease. It is true that the incidence of this disease, is bound up in such elements as housing, living conditions, etc., but basically, as stated, it is an infectious disease, and until attacked from this angle will never be controlled. If one wishes to control any infectious disease, one must know, among other things, who has the disease; in other words, where are the sources of infection. Tuberculosis presents a peculiar problem. We have a disease with two groups equally tuberculous from the point of view of pathology, but entirely separate in so far as the power to infect others is concerned. These groups are:

1. Those with tubercle, where tubercle bacilli are not expelled from the body, either because of the location of the tubercle or because caseation and breaking down have not occurred; and

2. Those where the location or the stage of the disease is such that tubercle bacilli find their way outside the body, particularly by way of the respiratory tract.

These two groups, then, contain individuals who are:

1. Potential spreaders of infection in that, sooner or later, some of the group will, as the disease progresses, eventually expel tubercle bacilli from the body; and

2. Actual spreaders of infection; in other words, those actually expelling tubercle bacilli.

To control the disease one must discover the members of both groups. Fortunately, the means of discovery are in our hands; but, unfortunately, this knowledge is not universally appreciated nor put into practice. The tuberculin test properly applied with proper dosage will, in almost 100 per cent of cases, detect those persons in whose bodies tubercle formation has taken place. The x-ray, plus exhaustive physical examinations, will show who are actually and at present infectious. If tuberculin testing with examinations and x-rays of all reactors could be made the universal procedure, followed by hospitalization of active and infectious cases, plus follow-up and supervision of those who are potential sources of danger, the control of tuberculosis would be at hand and very quickly so.

Recognizing the impossibility of universal application of these measures, health authorities and antituberculosis workers have chosen that portion of the population which is of school age. This is wise for many reasons. Children form a large portion of the population. They are easily accessible in groups which facilitates the application of the test to large numbers in a short space of time and makes them available for easy and quick check-up. They are the most interesting part of the population to a very high percentage of adults. Hence, the application of the test and subsequent measures are followed with interest by a relatively greater number of persons than would be the case were a section of the adult class the subject of investigation. Hence, education of a larger part of the population results from the examination of one distinct part thereof. Moreover, that group which shortly, in the passing of time, will be framing the laws and determining the application of health measures, is being given practical education regarding the easy discovery and elimination of tuberculosis and, in this way, will be a very potent factor in promoting the universal application of these measures at a later date.

The authors have done and are doing a splendid piece of work. To carry out this program for more than five years makes great demands upon time, energy, and enthusiasm. The plan has been carried out in a highly practical way.

First—as always must be done if such a program is to be successful—they laid the proper groundwork by contacting and educating the Parent-Teachers' Associations, the Mothers' Clubs, and the student bodies. They secured the coöperation of principals, teachers, and educational authorities. These steps are absolutely necessary for the successful carrying out of any such disease-prevention program. If neglected the efforts will fall far short of success. Next, they did not attempt too much, such as more than one test, except in special instances. They x-rayed and examined all reactors in order to discover those active cases needing treatment for their own protection, and also to discover, in order that the public health might be protected, those cases which were infectious. Those neither active nor infectious were followed up by means of serial x-rays. Also an effort was made to discover the source of infection or other cases of disease among the families or contacts of reactors. The resultant 31.4 per cent of reactors corresponds closely to similar tests in other communities in California.

Doctor Geiger and his associates are following the most approved and, as yet, the most successful plan for the eradication and cure of tuberculosis. The health officers and practicing physicians are both interested in the results of such surveys and examinations. Each, however, has a little different slant. The health officer asks, "Who has the disease tuberculosis?" Of the reactors to tuberculin, he asks which of these has open tuberculosis? In other words, which is capable of spreading the disease. The health officer wishes to find the answers early for the protection of the health of the public.

The practicing physician asks the question, "Who has the disease?" And of the reactors he asks, "Which of these has active disease requiring treatment?" The physician wishes to get his active cases early for the protection of the patient's health and resources. The plan being employed by Doctor Geiger and his coworkers in San Francisco is giving the answers to these questions, in so far as the school child is concerned. This is of great practical importance, but I think equally important is the education of the general population in the infectiousness of tuberculosis, and in the measures necessary for its control.

Reginald H. Smart, M.D. (506 Medical Office Building, Los Angeles).—The report of Doctor Geiger and his colleagues is of timely interest to all who are interested in the prevention of tuberculosis. They are to be congratulated upon the work done and the method employed. The use of the intradermal tuberculin test in conjunction with the chest x-ray is somewhat more expensive than some methods, particularly those depending upon the sole use of the fluoroscope or the paper film. The tuberculin test has the very great advantage of detecting not only those who harbor, at the time of examination, serious pulmonary lesions, but also those who have only a tuberculous infection which has not as yet produced a demonstrable x-ray lesion. The majority of children, who react to tuberculin, when x-rayed show no definite evidence of tuberculous infection either active or latent. Some of these children are potential future sufferers from tuberculosis unless appropriate protective measures are taken. If these youngsters are studied only with the x-ray, they and their parents are apt to derive a false sense of security from the negative report.

The child who has a positive tuberculin test but negative x-ray and clinical findings should be given appropriate supervision. It is particularly important that a careful search be made among the other members of the household for a possible unrecognized case of tuberculosis, which is acting as a source of infection. This search should be made with the aid of the x-ray and sputum examinations. The fluoroscope has been used in the search among adults for open, sputum-positive tuberculosis. It must always be kept in mind, however, that the fluoroscope and the paper film are definitely inferior to the standard x-ray film. In surveying children, adolescents, and young adults, where it is so important to detect tuberculosis early, only the best possible technique should be used.

In addition to eliminating the possibility of a source of infection in the household, it is advisable to maintain and increase the child's resistance and vitality by insuring abundant rest, adequate nutrition, fresh air, sunshine, and the avoidance of severe respiratory illnesses. In my opinion, it is highly undesirable to remove from school children who have only a positive tuberculin test, as implied by Doctor Geiger and his coworkers. To do so will inflict incalculable mental and emotional injury to hundreds of thousands of healthy children. I do not believe it is necessary or desirable to segregate these youngsters in school. They do not have active tuberculosis, neither are they carriers of the disease. To segregate them will accomplish little, and engenders an attitude of phthisophobia that can only deter parents from having their children take the tuberculin test. The majority of American phthysiologists do not agree with Myers and Stewart that tuberculin hypersensitivity *per se* is *prima facie* evidence of existing active tuberculosis of the primary type; neither do they feel that tuberculoallergy renders a child more susceptible to exogenous reinfection with tubercle bacilli. There is abundant experimental and clinical evidence that a primary infection which has been overcome renders the individual somewhat more resistant to reinfection with tubercle bacilli.

Regarding the technique of the Mantoux test, I agree that a single-dose tuberculin test is more practical in mass surveys than the two-dose method. I do feel that the purified protein derivative of Long has several advantages. It is a standardized tuberculin of uniform potency, and it can be prepared freshly before injection. I have not found negative reactions to the first test in persons with known active tuberculosis, although it is said to occur rarely. We have found an intermediate dosage of P. P. D. very useful. We give .00025 milligram intradermally. This is twelve and a half times the regular first strength, and one-twentieth the second strength. Doctor Long advises using an intermediate strength of one-tenth the second dose, or .0005 milligram. This has been used in numerous localities with good results. In my experience, it is a little too strong for groups containing large numbers of Mexican, Negro or Japanese children, since these races seem to react more vigorously to tuberculin.

It is rather difficult to make an accurate comparison of the San Francisco statistics with those from Los Angeles, since the age and racial distributions are not given. It would appear that the percentage of positive reactors is somewhat higher in San Francisco than in Los Angeles County, where 33,000 children have been tested and 22 per cent had positive reactions. However, these children, in most instances, are living in suburban or rural communities. Of 6,500 high school students tested in the city of Los Angeles, the positive reactors were 27 per cent.

Harold G. Trimble, M.D. (707 Latham Square Building, Oakland).—This paper presents the modern method of approach toward one important phase of tuberculosis, the epidemiological problem.

In addition to finding some fifty cases of open tuberculosis per year, and removing them from a susceptible population, the health education aspects of such a concrete demonstration are invaluable.

Our own experience with regard to the type of tuberculin used does not quite coincide with that here stated. We have had no serious difficulty with the P. P. D. (purified protein derivative) type of tuberculin in group surveys of this kind. It has the advantage of giving a reaction that is somewhat easier to read than the usual old tuberculin. In many school surveys this more clean-cut reaction is a factor where tuberculins are done by relatively inexperienced persons. This, of course, was not the case in the San Francisco survey.

A very significant part of this study, and one which adds greatly to its completeness, is the fact that not only was the school population itself examined, but a serious attempt made to go back into the homes and examine known available contacts.

If school children could be periodically tested with tuberculin and, as soon as a positive reaction develops, careful epidemiological studies made of their contacts, not only in school but particularly in their home environment, it seems probable that much otherwise unrecognized active open pulmonary tuberculosis would be brought to light. San Francisco, of course, has the advantage of a unified Health Department, where such studies are feasible. As the authors point out, while this type of program may seem expensive, the number of dollars spent go much farther and carry much more weight than those spent for care of chronic carriers. Many of these chronic carriers, in spite of all of our present progressive methods of collapse, cannot be safely returned to their home surroundings, and must receive considerable care as long as they live. The community has long been educated that this is a necessary expense. As the authors point out, much of this expense could be saved by such a progressive plan as they outline.

I must again stress the educational effect upon the school child of this type of program. It is not uncommon for us to see, as patients, young adults who have been graduated from high schools where surveys of this type have been done previously. Where respiratory symptoms have persisted, they not infrequently demand that their physician have a tuberculin test done and a chest x-ray taken, and thus is brought to light early cases of pulmonary tuberculosis that could be found in no other manner.

Finally, as a relatively inexpensive method, the use of a proper fluoroscope with an adequate screen, in trained hands, has been found by us to be quite satisfactory for this type of group survey. Where funds are limited, practically seven times as many children can be examined for the same money by tuberculin testing and fluoroscopy as can be examined by tuberculin testing followed up by chest x-ray.

As long as our State law in California requires consent of the parents for tuberculin tests, in the average school only about 50 per cent consent can be gotten, even with considerable preliminary education. With a great deal of individual work, this can sometimes be increased to 60 per cent, but unless there is some very unusual circumstance, rarely higher.

We have recently tried reversing the usual procedure of tuberculin testing first and x-raying only the positive reactors, by fluoroscoping all the children first. For this, no consent is necessary, and practically all the children in school during the days the fluoroscopy is being carried on will be examined. This amounts to from 92 to 95 per cent. In this fashion the gross tuberculosis can be readily recognized. Only those who have positive fluoroscopic findings are sent in for x-ray films for a permanent record. This percentage is usually relatively small, and varies with the social conditions of the students in the school survey. At the time of fluoroscopy we request students to get consent for tuberculin tests, and obtain the usual 50 to 60 per cent response.

I am aware of the recent papers showing some criticism of this use of the fluoroscope in these types of cases, but in our hands, after careful checking, it seems to be an entirely practical procedure.

FUNDUS OCULI STUDIES*

THE VALUE OF REPEATED FUNDUS OCULI STUDIES TO BETTER DIAGNOSIS AND TREATMENT IN GENERAL MEDICINE

By George L. Kilgore, M.D.
San Diego

Discussion *by John C. Ruddock, M.D., Los Angeles; L. H. Redelings, M.D., San Diego; Philip Corr, M.D., Riverside.*

IT seems that the potential value of repeated fundus oculi studies in general medicine is appreciated by few internists. This is evident by the small number who are capable of interpreting their own findings, and their apparent lack of interest in having competent oculists in consultation on many interesting cases. The value of ophthalmoscopy as an aid to better diagnosis has been brought before internists and general practitioners many times, but not often enough to convince them of the information that may be gained through its use.

The purpose of this paper is to stimulate a more frequent use of fundus oculi studies in general medicine. The author hopes to do this by summarizing and showing the relationship of fundus changes produced by certain diseases to a better diagnosis, treatment, and prognosis of these disorders.

MYDRIATICS

In order to make a proper study of the fundus oculi, it is necessary to see all of its parts clearly. To get a good view of the fundi, the pupils should be widely dilated. Dilatation of the pupils is obtained by various drugs, depending on the age of the patient. The drugs most frequently used are: atropin sulphate solution, one per cent, in children; homatropin hydrobromid solution, two per cent, in adolescents; and cocain hydrochlorid, four per cent, in patients over twenty years of age. It is not possible to get normal dilatation with the mydriatics mentioned in cases of old iritis or Argyll-Robertson pupils. It is also difficult at times to obtain dilatation in elderly persons. It is best to use a dark room in the examination of the fundi, because in a dark room the reflexes of the refracting media are reduced and the structures of the fundi can be clearly seen.

ROUTINE EXAMINATION

A routine fundus examination should include a test of the visual acuity, the pupillary and corneal reflexes, movements of the eyes and lids, and a rough test of the visual fields. Such a procedure is a test of the function of the second to the seventh cranial nerve inclusive.

RETINAL BLOOD VESSELS

It has been known for many years that it is practical to make direct studies of the end-arteries and arterioles in their natural state by an examination of the fundus oculi. One may expect noticeable changes in and around the arterioles and veins

* Read before the General Medicine Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2-6, 1937.

of the fundi during the course of blood dyscrasias, anemias, septicemias, diabetes, deficiency diseases, high blood pressure, kidney diseases, metabolic disturbances, etc. The vessels of the fundi may be affected directly or indirectly by intracranial lesions with edema of the disks, after toxic doses of drugs, such as quinin, and after local inflammatory conditions in the eye. The pathology associated with these diseases can be seen, and in many instances a good index of the state or progress of the disturbance is gained by this knowledge. The evaluation of specific findings will be considered in conjunction with other comments under separate diseases.

The condition [1,2] of the retinal vessels is an index to the state of the vessels of similar size throughout the body. This is particularly true of the brain cortex. With this as an axiom, internists, particularly those interested in cardio-vasculo-renal diseases, may make a study of the arterioles and small arteries in their actual state.

The abnormalities most commonly found associated with disease in the fundus oculi are: constriction and sclerosis of the vessel walls, hemorrhages in the retina and choroid, edema of the retina and disk, and exudates in the retina. Any or all of these findings may be seen in the fundi simultaneously.

The term "retinitis," [3] as used in describing the changes found in the retina in association with general disorders, is a misnomer, in that the edema, hemorrhages, and exudates are not a result of the inflammation, but are secondary to an angiospasm or to toxins.

RETINITIS ASSOCIATED WITH HYPERTENSION

As an introduction to the subject, retinitis of hypertension and arteriosclerosis, the author will quote the summary of a lecture by Wagner [4] relative to retinitis of hypertensive types:

> In association with hypertension in the various forms of cardiovascular renal disease, two main types of retinitis occur: one dependent on the angiospastic (toxic?) features and the other on the chronic arteriolosclerotic factors of the disease. The angiospastic nature of the acute retinitis is recognized most readily in toxemia of pregnancy, but angiospasm is obviously the exciting factor in many cases of retinitis in essential hypertension and in glomerulonephritis. Retinitis of arteriolosclerotic type occurs only in association with essential hypertension and diffuse arteriolosclerosis or arteriosclerosis. Angiospastic retinitis always indicates a more rapidly progressive disease than arteriolosclerotic retinitis. Except in the cases of toxemia of pregnancy and of acute glomerulonephritis, the prognosis for the life of any patient with an angiospastic type of retinitis is very grave. Angiospasm may occur and lead to retinitis in the presence of previously normal retinal arterioles. In cases of essential hypertension, however, it is almost always superimposed on preëxisting sclerosis of the retinal arterioles. Definite advanced arteriolar or venous disease should be visible to justify the diagnosis of the retinitis of arteriolosclerosis, and the retinal lesions are usually localized to the areas of marked vascular damage. The prognosis for life in these cases must be based on the grade of the associated general vascular disease, and not on the grade of vascular disease visible in the retina.

The recent literature on retinitis hypertension and arteriosclerosis has apparently clarified many confusing points relative to the etiology of "albuminuric retinitis." Keith [2] places patients with the fundus findings of "albuminuric retinitis" in his Group 4, and states that the pathology of this condition is a diffuse arterial and arteriolar thickening throughout the body associated with retinal changes.

Yater [5] states that, in renal disorders, one may expect a change in the retinal arterioles only if a hypertension is present, but that in nephrosis or the tubular degeneration type of kidney disease, no fundus changes are seen.

It is very difficult to differentiate between the retinitis due to kidney disease with hypertension and a retinitis due to hypertension alone. The chief differences are a more noticeable anemic appearance of the fundi and an increased retinal edema in the retinitis associated with the kidney disease.

DIFFUSE VASCULAR DISEASE

The ophthalmoscopic findings in a retinitis of diffuse vascular disease are sclerosis of the arterioles, edema of the retina, cotton-wool patches, and small hemorrhages. Keith [2] has divided the cases of diffuse arterial disease with hypertension into four groups. Patients in Group 1 have minimal changes in the retina, with a distinct organic narrowing of the arterioles. Patients in Group 2 have a decided narrowing of the arterioles. In Group 3 there are diffuse arterial changes and a mild retinitis. Patients with edema of the disk and marked narrowing of the arterioles are placed in Group 4. Patients in Group 1 have a good prognosis and respond well to treatment. The general outlook for the patients in Group 2 is more serious, for the progress of the disease is more rapid. Cases falling into Group 4 have a very serious prognosis. In this group there is, in addition to the usual findings of a retinitis of hypertension, an edema of the disk and an extreme narrowing of the arteriolar lumen.

Yater and Wagener [6] made a study of 137 cases of heart disease. In this group, 96 per cent of the cases of heart disease were due to hypertension alone, and changes characteristic of hypertension were found in the retinal arterioles. Therefore, in hypertensive heart disease, the retinal examination is important. The presence of a retinitis or neuroretinitis in cases of heart disease are found to indicate a shorter duration of life.

DIABETES

Fundus findings of diagnostic significance may appear in diabetes. The characteristic findings are punctate, shot-like hemorrhages in the retina and an occasional retinal exudate. The hemorrhages may be found in the periphery of the fundus near the veins, but are more diagnostic when found as small groups in and around the macula.

"Diabetic retinitis" [7] may develop when the diabetes is apparently under control, the blood sugar being low and the urine sugar-free. In an established retinitis, the retinal hemorrhages and exudates may not disappear with an improvement of the diabetes. The presence of diabetes is not sufficient to produce a retinitis. This is proved by the absence of this complication in children, and by the fact that a high blood pressure and vascular disease

are generally present in the adults who have "diabetic retinitis."

A rare condition seen in the fundus in cases of diabetes is lipemia retinalis, in which the characteristic findings are white arteries and veins in the retina. The change in the color of the vessels is due to the high-fat concentration in the blood. This condition is generally seen in young people and indicates a poor prognosis.

Some fundus pictures are a combination of the petechial hemorrhages found so characteristic of "diabetic retinitis," and a sclerosis of the retinal arteries of diffuse arterial disease. Interpretation of such findings requires a close study of the fundus and a knowledge of the findings in the patient's general examination.

BLOOD DYSCRASIA

The presence of a blood dyscrasia, such as leukemia, is in many instances first suspected by a routine fundus examination. The characteristic findings are ballooned veins, large massive hemorrhages with white centers, and an edema of the optic disk. The hemorrhages may pass deep to the retina and cause a detachment of the choroid or retina. The choroid is usually affected. During a remission in leukemia, the fundus may show only an engorgement of the retinal veins. A diagnosis can be made from the fundus findings only during the acute and subacute stages of the disease.

Retinal hemorrhages appear during the course of anemia, particularly if it is severe. The veins are found to be fuller than normal, and the fundus has a general anemic appearance. The hemorrhages in the retina disappear with the improvement of the anemia.

TUBERCULOSIS

In the course of miliary tuberculosis, one or more tuberculoma may appear in the choroid of one or both eyes. These lesions have the appearance of a "rising sun," and such findings are characteristic of the disease. As the patient improves, the lesions may heal, leaving irregular holes in the choroid with a possible involvement of the retina.

A study of the fundus oculi in general diseases, such as tuberculosis, lues, etc., may reveal a degeneration of the retina and choroid. The degeneration may be that of multiple small holes scattered throughout the fundi, or may be in the form of a general disintegration of the structures.

CENTRAL NERVOUS SYSTEM DISORDERS

The central nervous system disorders which usually produce changes in the fundus oculi are: introcranial neoplasms, inflammations, and degenerative nerve lesions.

Repeated fundus oculi studies in luetic cases receiving treatment, particularly tryparsamid, are essential.[8] Any evidence of progressive atrophy of the optic nerve is a contraindication of further treatment. Studies of the visual fields with the perimeter and tangent screen should be made of all cases receiving tryparsamid treatment. The drug should be discontinued at the first sign of increased field defect. A close watch should be kept on luetics with central nervous system involvement while they are receiving arsphenamin preparations. The same precautions should be taken with tryparsamid therapy.

Local fundus lesions may be found in patients with general diseases. Some of the more common lesions are: Areas of inflammation, tumors, degenerative lesions of the retina and choroid, developmental anomalies, etc.

One may see from this brief summary of ophthalmoscopy that repeated fundus oculi studies are essential to a better understanding of general disorders. The value is not limited to diagnosis. In the field of therapy such studies give valuable information as to progress and prognosis.

Bank of America Building.

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DISCUSSION

John C. Ruddock, M.D. (1930 Wilshire Boulevard, Los Angeles).—Routine fundus oculi studies for diagnosis and treatment in general medicine are overlooked by many internists and general practitioners. This is probably true because diseases of the eye have for many years been a specialty, and members of the medical profession who have perfected themselves in the interpretation of diseases of the eye are known as ophthalmologists.

Doctors should not overlook the fact that it is not difficult to train themselves to the point where they are able to recognize variations in the normal fundus; and if they do not desire to go further these patients can be referred for examination to the ophthalmologist. It has been my practice for years to examine the fundus of the eye as a part of my routine physical examination. It has been of extreme value in that it is often possible to make the diagnosis, or get a clue to what the diagnosis will be, following this relatively simple examination.

Doctor Kilgore has enumerated very well the various conditions, with their interpretations, that can be diagnosed or suspected from a fundus study. I wish to join with him in his plea that internists and other physicians add fundus oculi studies to their routine physical examinations. Also, I wish to further reiterate, with Doctor Kilgore, that this should lead to better diagnosis, treatment, and prognosis of general disorders.

L. H. Redelings, M.D. (233 A Street, San Diego).—There is an old adage that there are more mistakes made by not looking than by not knowing. Doctor Kilgore's article is a timely reminder to the internist to remember the importance of fundus studies in his diagnostic work.

Fundus observation should be a part of every careful diagnostic study. The procedure requires little more than a dark room, a good ophthalmoscope, and a few moments

of time. Too often at the time of first examination the dark room is not available and the ophthalmoscope is not at hand. With the opportunity once lost, this study is never completed. Let us try to make sure that our records include the fundus observation before we consider a study complete. It is my feeling that the internist who will faithfully make routine fundus observations will learn much about his patients, and will continuously improve his interpretative skill. He will also recognize the need of help from those more skilled than himself where an unfamiliar finding confronts him. To the expert he may well leave the greater refinements of fundus study, such as photography, the use of red-free or yellow-green light, etc., and the careful mapping of visual fields.

In many instances the internist may aim only to recognize departure from the normal fundus picture, which he should faithfully train himself to do, referring all abnormal pictures to his friend, the ophthalmologist, for reading.

PHILIP CORR, M.D. (Mission Inn Rotunda, Riverside). Here is a paper calling attention to that most important fact, that an examination carefully done is of definite value to the patient. And it suggests that the internist, who as a rule is most detailed in his examination, has not been considering adequately the study of fundus oculi.

Most of us are so habit-bound that our examination must be done in a rather routine way or they are not done. Those of us who do routinely examine the fundus would probably be deterred from making such examinations if we routinely employed a mydriatic. So we choose the "practical," *i. e.*, the inferior (*e. g.*, "practical" nurse) way, and content ourselves with examining the fundus through the undilated pupil.

Even by this curtailed examination we achieve the aim of discovering the simple lesions and of recognizing the abnormal pictures which require expert help from competent oculists.

BY-LAWS OF A COUNTY MEDICAL ASSOCIATION*

NEWLY ADOPTED BY-LAWS OF THE LOS ANGELES COUNTY MEDICAL ASSOCIATION

PREAMBLE

The name of this organization is The Los Angeles County Medical Association; a nonprofit corporation.

This Association was formed for, and is devoted to, the promotion and development of the science and art of medicine, the conservation and protection of the public health and the promotion and betterment of the medical profession; it shall coöperate with organizations of like purposes and unite with similar associations and societies of other counties and districts of the State of California to form the California Medical Association.

ARTICLE I

MEMBERSHIP

Section 1—Qualifications for Membership

All nonsectarian Doctors of Medicine, and those with equivalent degrees, who are licensed to practice medicine and surgery in the State of California and who have resided in the County of Los Angeles, State of California, for a period of not less than six months immediately preceding application for membership, shall be eligible to apply for membership; provided that eligibility to become and continue a member of the Association shall be determined solely by the Council.

Section 2—Classification of Members

There shall be four classes of members, viz.: active members, associate members, retired members, and honorary members, each of which shall have the respective rights and privileges expressly enumerated in the Articles of Incorporation and the By-Laws, and no others.

* By-Laws as here printed are those of the Los Angeles County Medical Association, which were adopted on October 25, 1937, a total of 1,750 ballots being cast in favor thereof, and 75 against adoption. See also editorial comment on page 361.

(a) Active Members

Any person residing in the County of Los Angeles holding the degree of Doctor of Medicine or an equivalent medical degree, holding an unrevoked certificate entitling him to practice medicine and surgery, issued by the Board of Medical Examiners of the State of California, which certificate is duly recorded in the office of the County Clerk of the County of Los Angeles, who practices nonsectarian medicine and whose ethical and professional qualifications conform to the standards provided in these By-Laws, shall be eligible to apply for election to active membership in this Association. The procedure for the admission of active members is provided in Section 3 of this article.

An active member shall have the right to vote upon all propositions submitted to the membership at large, the right to vote upon the election of trustees, councilors, and officers, the privilege to attend and take part in all meetings of the Association and its branches and sections, as provided in these By-Laws, and shall be eligible to any office or honor within the gift of the Association.

(b) Associate Members

Associate members may be elected by the Council upon the written recommendation of at least ten active members, from those nonsectarian Doctors of Medicine engaged in teaching or research work or holding positions in the Federal Services, or American Red Cross, who are not licensed to practice medicine and surgery in the State of California.

Associate members shall have all the rights and privileges of active members except the right to vote or hold office. The dues of associate members shall not include the annual California Medical Association assessment and shall be fixed annually by the Board of Trustees.

(c) Retired Members

Any person who has been an active member of this Association for at least ten years next preceding his election to retired membership and who has retired from the active practice of medicine or gives other reasons satisfactory to the Council may, upon his own written application or that of two active members in his behalf, be elected to retired membership by the Council.

Retired members shall not have the right to vote or the right to hold office or any right or title to any property of the Association. They shall receive publications of the Association at such rates as the Board of Trustees may determine and shall be privileged to attend any meetings of the Association or its branches or sections which are open to active members. Retired members shall pay no dues. All members of the Association now classed as honorary members shall, upon the adoption of these amended By-Laws, be classed as and be retired members of the Association.

(d) Honorary Members

The Council, upon two-thirds affirmative vote of the Councilors present, may elect to honorary membership any person who in the judgment of the Council is worthy, provided such nominations for honorary membership shall have been submitted, in writing and signed by at least twenty (20) active members, at two previous meetings of the Council. Honorary members shall not have the right to vote or the right to hold office or any right or title to any property of the Association. Honorary members shall pay no dues.

Section 3—Procedure for Admission of Active Members

(*a*) Active membership shall be obtained through election by the Council acting upon the regular written application for such membership.

(*b*) Each application shall be accompanied by such fees as shall be prescribed by the Board of Trustees.

(*c*) Each application shall be signed in duplicate by the applicant, witnessed by a notary public and endorsed by two members of this Association, and shall be on such forms as are prescribed by the Council. The applicant's signature to such application form shall evidence his acceptance of, and intention to be bound by, the Articles of Incorporation and By-Laws of this Association and principles of professional conduct, together with all future amendments of such Articles or By-Laws, and principles of pro-

fessional conduct which may be duly adopted pursuant to the provisions thereof.

Each application and duplicate shall be filed with the Secretary-Treasurer, who shall forward the duplicate to the office of the California Medical Association.

(*d*) Each application for active membership shall be referred by the Chairman of the Council to the Committee on Admissions, which shall investigate the qualifications of the applicant and in writing, on a form authorized by the Council for that purpose, shall report to the Chairman of the Council with a recommendation thereon.

(*e*) The names of all applicants for such membership shall be published in at least two successive issues of the official publication of this Association before being voted upon by the Council.

(*f*) Election shall be by secret ballot and an affirmative vote of two-thirds of the Councilors present shall be necessary to elect.

(*g*) Each application, with the action taken by the Council certified in writing by the Chairman of the Council, shall be returned to the Secretary-Treasurer, who shall file it in the archives of the Association.

(*h*) If an applicant is rejected by the Council, all fees paid by him shall be refunded. Such a rejected applicant may not reapply until at least one year shall have elapsed after date of rejection.

Section 4—Membership in Good Standing

(*a*) Membership shall become effective and a member shall be in good standing, unless otherwise disqualified, upon signing the By-Laws and upon payment of dues.

(*b*) Membership shall endure for life unless terminated as provided in these By-Laws and in the By-Laws of the California Medical Association.

Section 5—Standards of Qualifications

This Association, acting through the Council, shall be the sole judge of the moral, ethical and professional qualifications requisite for admission to or continuation of any kind of membership in this Association.

Section 6—Transfer From Other County Society

(*a*) A physician presenting a transfer card from another component county society of the California Medical Association or other constituent state medical unit of the American Medical Association must accompany this transfer card with a regular form of application for membership properly filled out, and the Council shall act upon such application as upon all other applications for membership; provided the Council shall not act upon such transfer until the applicant has resided in Los Angeles County for at least six (6) months.

(*b*) Subject to the approval of the Council, a physician presenting a transfer card and elected to membership shall receive a credit with respect to annual dues for the current year in an amount equal to such annual dues as have been paid to his previous component county society in the year in which application for membership is accepted.

Section 7—Transfer to Other County Society

A member in good standing against whom no charges are pending, wishing to be transferred to another component county society, upon application in writing to the Council and subject to its approval shall be granted a transfer card without cost, subject to the provisions of the Constitution and By-Laws of the California Medical Association. This card shall state the class of membership, the date on which the member was admitted to membership and the date of issuance of the card, and shall be signed by the Secretary-Treasurer of this Association.

Section 8—(a) Leave of Absence

Leave of absence or remission of dues for a maximum period of twelve months may be granted by the Council by a two-thirds vote to any active member in good standing upon written request, provided such request shows evidence that the member will be out of the confines of the State and will not be engaged in the private practice of medicine or surgery during such period, or gives other reasons adequate in the judgment of the Council.

(b) Officers in Active Service

United States Medical Reserve officers and Red Cross officers who are called to active service, during the period thereof, upon written application to and approval by the Council, may be retained on the membership roster of the Association without the payment of dues other than assessments payable to the California Medical Association.

Section 9—Termination of Membership

(*a*) Any member in good standing may resign by filing with the Secretary-Treasurer his written resignation, which may be accepted by the Council only after all indebtedness to the Association has been paid.

(*b*) Membership shall cease automatically if membership dues, initiation fees or assessments, or any part thereof, remain unpaid after the expiration of the time for payment thereof prescribed pursuant to or by these By-Laws.

(*c*) Any member whose license to practice medicine and surgery in the State of California is revoked shall, upon receipt of written evidence by the Secretary of the Association from the State Board of Medical Examiners that such revocation has become final, thereupon automatically cease to be a member.

(*d*) Any member who has been adjudged guilty of a criminal offense involving moral turpitude or who has been duly adjudged guilty of misconduct as a physician or surgeon or of any act in contravention of any of the provisions of the Articles of Incorporation, these By-Laws or the principles of professional conduct of this Association or of the principles of medical ethics promulgated from time to time by the California Medical Association or by the American Medical Association shall be subject to admonishment, censure, suspension or expulsion from this Association.

(*e*) The procedure with respect to disciplinary action such as admonishment, censure, suspension or expulsion of any member shall be that provided in the Constitution or By-Laws of the California Medical Association. All present provisions of the Constitution and the By-Laws of the California Medical Association and all amendments hereafter made thereto relating to disciplinary procedure are hereby adopted and made a part of these By-Laws as though herein set forth in full.

Section 10—Membership and Rights Thereof Not Transferable

Neither membership in this Association, nor any certificate evidencing the same, nor the interest of any member in this Association, or any of the assets thereof, shall (*a*) be subject to execution, or become or be, an asset of the estate of any deceased member, or of any member who may become insolvent or bankrupt, (*b*) descend to or vest in the heirs, legatees or devisees of any member, or (*c*) be transferable or assignable in any form, either by the voluntary or involuntary act of any member, or by operation of law. In the event of the death, insolvency or bankruptcy of any member or of any such attempted transfer or assignment of membership, or of any interest of any member in this Association, or any of the assets thereof, whether by the voluntary act of the member or otherwise, such membership and all interest of any such member in this Association, and all assets thereof, shall be automatically canceled, revoked, and terminated.

Article II

Office and Meetings of the Association

Section 1—Office

The principal office for the transaction of the business of the Association is hereby fixed and located at No. 1925 Wilshire Boulevard, in the City of Los Angeles, County of Los Angeles, State of California. The Board of Trustees and the Board of Councilors, by a two-thirds affirmative vote of each thereof may, upon written resolutions signed by at least twenty-five (25) active members, change said principal office from one location to another in the said City of Los Angeles, County of Los Angeles, State of California.

Section 2—Other Offices

Branch or subordinate offices may at any time be established by the Board of Trustees at any place or places within the said County of Los Angeles.

Section 3—Annual Meeting

The annual meeting of the Association shall be held on the first Thursday of December of each year at eight

o'clock p. m. of said day; provided, however, that should said day fall upon a legal holiday, then said meeting shall be held at said time and place on the next day thereafter ensuing not a holiday. All elective officers shall be elected at the annual meeting to take office as of January 1 of the succeeding year. Notice of the annual meeting shall be published in the official publication at least once prior to the date of meeting.

Section 4—General Meetings

General meetings of the Association shall be held at such times and in such places in the County of Los Angeles as the Council shall direct, provided that not less than nine such meetings shall be held in any calendar year. Notice of the time and place of all general meetings shall be published at least once in the official publication of the Association not less than five days before the date of meeting.

Section 5—Special Meetings

Special meetings may be called by the President at any time and shall be called by the President upon the request of the Trustees or the Council or upon the written request of seventy-five active members. All calls for special meetings shall be in writing and filed in the office of the Association and state the purposes for which the meeting is called. Within three days after the filing of such call in the office of the Association, the Secretary-Treasurer shall fix the date of such special meeting which shall be not less than ten days subsequent to the date of the filing of such call and shall cause written notice of such special meeting to be given by mail stating the time and place of the special meeting, by whom called and the purposes thereof as stated in the call, to each member of the Association. No business except that stated in the call shall be transacted at such special meeting. An entry in the minutes to the effect that notice has been duly given shall be conclusive and incontrovertible evidence that due notice of such special meeting was given to each member as required by law and the By-Laws of the Association.

Article III

TRUSTEES, OFFICERS, AND DELEGATES

Section 1—Officers

The Trustees and Officers of this Association shall be: President and Trustee, Vice-President, Secretary-Treasurer and Trustee, Trustees, and Councilors.

Section 2—Election and Terms of Trustees and Officers

(*a*) The President and Trustee, the Vice-President, and the Secretary-Treasurer and Trustee shall be elected annually by the active members of the Association, to serve for one year or until their successors shall have been elected and take office.

(*b*) In addition to the President and Trustee, and the Secretary-Treasurer and Trustee, five (5) Trustees shall be elected for terms of five (5) years or until their respective successors shall have been elected and take office. One of said Trustees shall be elected annually.

(*c*) Councilors shall be elected for terms of three (3) years or until their successors shall have been elected and take office, by the active members of the Association, as provided for in these By-Laws. Seven (7) Councilors shall be elected each year.

Section 3—Delegates and Alternates to the House of Delegates of the California Medical Association

Delegates and alternates to the House of Delegates of the California Medical Association shall be elected by the Council in such number, have the powers and duties, and serve for the terms as provided by the present Constitution and By-Laws of the California Medical Association and as such may be amended.

Article IV

THE BOARD OF TRUSTEES

Section 1—Qualifications of Members of Board

The Board of Trustees shall consist of seven (7) members, each of whom is and has been an active member of this Association continuously for ten or more years immediately preceding his election. The Trustee who is also elected the President and Trustee and the Trustee who is also elected the Secretary-Treasurer and Trustee, shall have the powers and duties of the offices of President and Secretary-Treasurer in addition to their powers and duties as Trustees.

The Board of Trustees at its first meeting after the adoption of these By-Laws, shall elect a Chairman and a Vice-Chairman each to serve one (1) year and until their successors are elected, and thereafter a Chairman and Vice-Chairman shall be elected at the regular meeting of the Board held in January of each year. The Secretary-Treasurer and Trustee shall act as and be the Secretary-Treasurer of the Board of Trustees.

Section 2—Regular Meetings

A regular meeting of the Board of Trustees shall be held on the second Thursday of each month at the hour of 12 o'clock noon at the office of the Association. Two days' written notice of the time and place of such meetings shall be sent by the Secretary-Treasurer by way of reminder to each Trustee, but failure to give such notice shall not affect the validity of any action taken by a quorum of the Board at such regular meeting. If said day for such regular meeting falls upon a holiday, then said meeting shall be held at said hour on the first business day thereafter. Notice of the time and place of holding an adjourned meeting need not be given to absent Trustees if the time and place be fixed at the meeting adjourned. Four (4) members of the Board of Trustees shall constitute a quorum.

Section 3—Special Meetings

Special meetings of the Board of Trustees may be called at any time by the Chairman or by three or more of the Trustees. Such call shall be in writing, signed by the person or persons making the call, and shall state the purposes of the meeting and shall be filed in the office of the Secretary-Treasurer. The Secretary shall forthwith fix the day and hour for such meeting, allowing necessary time to give notice thereof. Written notice of such meeting, stating the place, day and hour, the purposes of the meeting, and by whom called, shall be given by the Secretary at least forty-eight hours prior to the time set for such meeting by leaving same at the registered address of each Trustee, or by enclosing the same in a sealed envelope and depositing it in the United States mail at Los Angeles, California, postage fully prepaid, addressed to him at the place where he usually receives mail, if such place be known to the Secretary; or, if such place be not so known to the Secretary, then such notice shall be so mailed to him at Los Angeles, California. No other notice of a special meeting of the Board of Trustees need be given. An entry of the service of notice of a special meeting of the Board of Trustees given in the manner above provided, shall be made in the minutes of the proceedings of the Board of Trustees, and such entry shall be conclusive and incontrovertible evidence that due notice of such special meeting was given to each Trustee as required by law and the By-Laws of this Association.

Section 4—Place of Meetings

All meetings of the Board of Trustees, regular and special, shall be held at the office of the Association.

Section 5—Waiver of Notice

The transaction of any business at any meeting of the Board of Trustees, however called and noticed, shall be as valid as though transacted at a meeting duly held after regular call and notice, if a quorum be present and if either before or after the meeting each of the Trustees not present signs a written waiver of notice or a consent to the holding of such meeting and an approval of the minutes thereof. All such waivers, consents and approvals shall be filed in the Association records or made a part of the minutes of the meeting.

Section 6—Powers of the Board of Trustees

Subject to the provisions of the Articles of Incorporation and these By-Laws, the Board of Trustees shall be vested with full and complete power and authority to manage, control, use, invest, reinvest, lease, make contracts in respect of and concerning, convey in trust, sell or otherwise dispose of any or all property and assets of whatever kind or nature owned by this Association; to fix the amount of initiation fees; to fix the amount of the annual per capita

assessment of dues upon the active and associate members; and to levy special assessments.

The Board of Trustees may formulate rules governing the expenditure of moneys to meet the necessary running expenses and fixed charges of the Association, but no transaction, resolution or other act involving the expenditure of moneys, credit or property shall be valid unless approved by the affirmative vote of at least four (4) members of the Board. Every vote on appropriation resolutions must be recorded by the Secretary-Treasurer.

Section 7—Powers of Board: Appropriations and Expenditures

No individual, committee, other official body or group within the Association shall appropriate, expend, or use for any purpose, moneys or other assets belonging to the Association or incur any indebtedness in the name of the Association, without first making specific request in writing and receiving the approval of the Board of Trustees.

Section 8—Annual Report to Association

The Board of Trustees, through the Secretary-Treasurer, shall make an annual report of the financial status of the Association at the annual meeting of the Association and to the Council at its December meeting, and at such other times as the Council may request. The certified financial audit of receipts and disbursements shall be printed annually in at least one issue of the official publication of the Association.

Section 9—Disqualification of Trustees for Nonattendance

Absence of a Trustee from three (3) consecutive regular meetings of the Board of Trustees without an excuse satisfactory to the Council shall be interpreted as and shall constitute a resignation from the Board of Trustees. Upon receiving written notice from the Secretary-Treasurer of such unexcused absence the Council shall proceed to elect a Trustee to serve until the next annual election to fill that portion of the unexpired term of the Trustee so considered as having resigned.

Section 10—Appointment of Assistant Secretary and Other Employees

The Board of Trustees may appoint and fix the compensation of an Assistant Secretary (who need not be a member of the Association) who shall act under the immediate supervision of the Secretary-Treasurer. The Board of Trustees may appoint and fix the compensation of such other aids, clerks and other employees, as it deems necessary, giving each such title as may be deemed proper.

The Board of Trustees may appoint one or more legal advisors and shall indicate what duties shall be assigned to each advisor and shall fix the amounts of their retainers and fees.

Article V

THE COUNCIL

Section 1—Membership of Council

The Council shall consist of twenty-four (24) members. The President, Vice-President, and Secretary-Treasurer shall be members of the Council, and in addition there shall be twenty-one (21) councilors. The offices of the councilors shall be numbered from one (1) to twenty-one (21) inclusive. The incumbents of councilorships numbered six (6), seven (7), thirteen (13), fourteen (14), twenty (20), and twenty-one (21), must reside and have their principal places of practice outside of the 1937 city limits of Los Angeles. Thirteen (13) members shall constitute a quorum.

Section 2—Election of Chairman and Vice-Chairman—Secretary-Treasurer to Be Secretary

The Council at its regular January meeting of each calendar year shall elect a Chairman and Vice-Chairman from its members to serve for a term of one (1) year. The Secretary-Treasurer of the Association shall act as and be the Secretary of the Council.

Section 3—Regular Meetings

The Council shall hold a regular meeting on the first Monday of each month at the office of the Association. Written notice of the time and place of such meetings shall be mailed or delivered by the Secretary-Treasurer to each Councilor. Notice of the time and place of holding an adjourned meeting need not be given to absent Councilors if the time and place be fixed at the meeting adjourned.

Section 4—Special Meetings

Special meetings of the Council may be called by the Chairman at any time and shall be called by him upon the written request of any thirteen (13) Councilors. All calls for special meetings shall be in writing and filed in the office of the Association and state the purposes for which the meeting is called. Within twenty-four hours after the filing of such call in the office of the Association, the Secretary-Treasurer shall fix the date of such special meeting, which shall be not less than two (2) days subsequent to the date of the filing of such call, and shall cause written notice of such special meeting to be given by mail to each Councilor, stating the time and place of the special meeting, by whom called, and the purposes thereof as stated in the call. No business except that stated in the call shall be transacted at such special meeting. Whenever any Councilor has been absent from any special meeting of the Council an entry in the minutes to the effect that notice has been duly given shall be conclusive and incontrovertible evidence that due notice of such special meeting was given to such Councilor as required by law and by the By-Laws of the Association.

Section 5—Waiver of Notice

The transaction of any business at any meeting of the Council, however called and noticed, shall be as valid as though transacted at a meeting duly held after regular call and notice, if a quorum be present and if, either before or after the meeting, each of the Councilors not present signs a written waiver of notice or a consent to holding such meeting and an approval of the minutes thereof. All such waivers, consents and approvals shall be filed in the Association records or made a part of the minutes of the meeting.

Section 6—Duties of Chairman of the Council

The Chairman of the Council shall preside at all meetings of the Council. In the absence of the Chairman the Vice-Chairman of the Council shall preside. The Chairman of the Council each year shall appoint the chairmen of the standing committees for the said year, subject to the approval of the Council, unless otherwise provided for in these By-Laws.

Section 7—Council Final Judge of Applicants for Membership

The Council shall act upon all applications for membership as provided in the By-Laws and shall be the final judge of the eligibility of any applicant for membership.

Section 8—Nomination of Candidates

The Council at its regular October meeting of each calendar year shall nominate from the active membership of the Association the following:

(*a*) A candidate for the office of President and Trustee;

(*b*) A candidate for the office of Vice-President;

(*c*) A candidate for the office of Secretary-Treasurer and Trustee;

(*d*) A candidate for one of the five (5) additional Trustees to be elected for a five (5) year term;

(*e*) Seven (7) candidates for the offices of Councilor to serve terms of three (3) years each. At least two (2) of these seven (7) candidates shall reside and have their principal place of practice outside the 1937 city limits of Los Angeles.

Section 9—Vacancies to Be Filled

The Council shall elect an eligible active member to serve until the next annual election, to fill any vacancy occurring in the Board of Trustees or the Council and any vacancy in any office not otherwise provided for in the By-Laws.

Section 10—Appointment of Standing Committees

The Council, except as otherwise provided in the By-Laws, shall appoint the members of the Standing Committees of the Association.

Section 11—Powers and Duties of the Council

The Council shall supervise the administration of the scientific and educational work of the Association and in it shall be vested full power with respect to matters of public

policy. The Council shall be the disciplinary body of the Association and it shall be vested with full power over all matters relating to scientific and organized medicine and ethical conduct. It shall aid and assist the committees in the performance of their several functions and carry out other duties as set forth in these By-Laws and such as may be referred to it by the Board of Trustees.

Article VI

DUTIES OF PRESIDENT, VICE-PRESIDENT, AND SECRETARY-TREASURER

Section 1—Duties of the President

The President shall preside at all of the meetings of the Association and of the Committee on The State of the Association and shall perform such other duties as these By-Laws and custom and parliamentary usage require. He shall be ex officio a member of the Council and of all committees.

Section 2—Duties of the Vice-President

The Vice-President shall assist the President in the discharge of his duties and, in the absence of the President, shall assume the duties of the President. In the event of the President's death, disability, resignation or removal, the Vice-President shall succeed to the office of President for the unexpired term. The Vice-President shall be ex officio a member of the Council.

Section 3—Duties of the Secretary-Treasurer

(*a*) The Secretary-Treasurer shall attend all meetings of the Association, of the Council and of the Trustees, and shall keep minutes of their respective proceedings in separate record books. He shall be ex officio a member of the Council and of all committees. He shall be custodian of the seal of the Association.

(*b*) The Secretary-Treasurer shall be the custodian of the funds of the Association and shall keep account of the same. He shall demand and receive all funds due the Association and shall give proper receipt therefor. He shall receive all bequests and donations made to the Association and shall keep adequate records thereof and make disposition of them as directed by the Board of Trustees. He shall deposit the funds of the Association in such commercial or savings banks as shall be designated by the Board of Trustees as depositaries of the Association or make such other disposition of the funds as shall be ordered by the Board of Trustees. He shall pay out of the funds in his custody the expenses of the Association as authorized by the Board of Trustees. At least once each month he shall remit to the California Medical Association the annual assessment as levied by that organization and collected from the members.

(*c*) He shall submit his accounts to such examination as may be required by the Board of Trustees and at least once each year his books and accounts shall be audited by a certified public accountant selected by the Board of Trustees. He shall render to the Board of Trustees a monthly report in writing of the state of funds in his hands.

(*d*) The Secretary-Treasurer shall render to the Board of Trustees at their annual meeting a report, in writing, of his activities and of the state of the funds in his hands, which report shall be presented at the annual meeting of the Association. He shall make such other reports, in writing, as the Board of Trustees may request. The Secretary-Treasurer shall submit monthly to those committees that have supervision of funds in their activities, statements of the condition of such funds.

(*e*) He shall be Chairman of the Program Committee and he shall arrange the program for each general meeting of the Association and announce the same in the official publication of the Association, which he shall edit and cause to be mailed to each member.

(*f*) He shall keep a membership book, containing the name and address of each member of the Association, and shall also maintain a list of all nonsectarian Doctors of Medicine registered in the County of Los Angeles. He shall record in such membership book all cases of termination of membership and the date on which membership ceased.

(*g*) The Secretary-Treasurer and such employees as the Board of Trustees may see fit shall be placed under surety bonds at the expense of the Association in amounts to be determined by the Board of Trustees before assumption of duties of office.

Article VII

ELECTIONS

Section 1(A)—Nominations for Office

The Council holding office at its first meeting after the adoption of these By-Laws, in order to retain in office until their terms expire members who have been elected to fill certain positions, shall nominate, from the active membership, the following:

(*a*) A President and Trustee.

(*b*) A Vice-President.

(*c*) A Secretary-Treasurer and Trustee.

(*d*) Three (3) additional Trustees as follows: One (1) for five (5) years; one (1) for four (4) years; and one (1) for three (3) years. At its October, 1938, meeting no nominations shall be made for the Board of Trustees. At its October, 1939, meeting it shall nominate one (1) member to the Board of Trustees for a term of four (4) years, and one (1) member to the Board of Trustees for a term of five (5) years. Thereafter, one (1) Trustee shall be nominated annually by the Council to serve five (5) years.

(*e*) The Council shall designate councilorship numbers one (1), two (2), and six (6) to those incumbents whose terms of office expire at the end of 1938, and numbers eight (8), nine (9) and thirteen (13) to those incumbents whose terms of office expire at the end of 1939.

Councilorship numbers six (6) and thirteen (13) shall be given to those incumbents residing and having their principal places of practice outside the 1937 city limits of Los Angeles.

The Council shall then nominate fifteen (15) Councilors to serve as follows: In Councilorship numbers three (3), four (4), five (5), and seven (7) for one (1) year; in Councilorship numbers ten (10), eleven (11), twelve (12) and fourteen (14), for two (2) years, and in Councilorship numbers fifteen (15), sixteen (16), seventeen (17), eighteen (18), nineteen (19), twenty (20) and twenty-one (21) for three (3) years. Thereafter seven (7) Councilors shall be nominated annually to serve terms of three (3) years.

Nominees for Councilorships numbered six (6), seven (7), thirteen (13), fourteen (14), twenty (20), and twenty-one (21) shall at all times be members whose residence and principal places of practice shall be outside the 1937 city limits of Los Angeles.

Section 1(B)—Nominations for Office

At each succeeding regular October meeting, as provided in these By-Laws, the Council shall nominate the following:

(*a*) A President and Trustee.

(*b*) A Vice-President.

(*c*) A Secretary-Treasurer and Trustee.

(*d*) One (1) additional Trustee (except as provided for in Section 1(A) of this Article; and

(*e*) Seven (7) Councilors to serve for three (3) years as provided for in these By-Laws.

The names of all persons so nominated by the Council shall be printed in the first issue of the official publication for said month of November and shall be read at the general meeting of the Association in said month. At that meeting the President shall call for additional nominations from the floor for all of said offices; such nominations can be made only with the written consent of the member so nominated, submitted with a written nominating petition signed by fifteen (15) active members. A member nominating another member for the office of Councilor from the floor must state the name of the nominee, his place of residence and principal place of practice, the particular number of the councilorship for which the name is placed in nomination, and such nominee must have the residential and other requirements contained in the By-Laws. For each office for which there is only one nominee, the name of that nominee shall be placed upon the printed ballot and he shall be declared elected at the annual (December) meeting of the Association.

Section 2—Date of Election

The election of the President and Trustee, the Vice-President, the Secretary-Treasurer and Trustee, Trustees, and Councilors shall be held on the day of the annual meeting of the Association in December.

Section 3—First Election After Adoption of By-Laws

At the first annual meeting of the Association to be held after the adoption of these By-Laws, the following shall be elected: (*a*) A President and Trustee; (*b*) A Vice-President; (*c*) A Secretary-Treasurer and Trustee; (*d*) Three (3) additional Trustees as provided for in these By-Laws; (*e*) Fifteen (15) Councilors as provided in these By-Laws.

Said President and Trustee, said Vice-President, and said Secretary-Treasurer and Trustee shall serve for the term of one year and until their respective successors shall be appointed or elected and take office. Thereafter, as provided in these By-Laws, a President and Trustee, a Vice-President, and a Secretary-Treasurer and Trustee, Trustees, and Councilors shall be elected annually.

Section 4—Official Ballot

In the event of a contest for any office, the Secretary-Treasurer shall send to every member of the Association entitled to vote an official ballot not less than ten (10) days preceding the election day in December.

On each ballot shall be printed the names of the nominees for each office to be voted upon by the members of the Association entitled to vote. After the name or names of each nominee or nominees as printed in the official ballot, shall be placed a square in which the voter shall make a cross opposite the name of the nominee for whom he wishes to vote. Any ballot marked for more nominees for an office than there are places to be filled shall not be counted for any of the nominees for the office thus marked.

Section 5—Procedure of Voting

The Secretary-Treasurer shall mail an official ballot and two official envelopes with instructions to each qualified voter, not less than ten (10) days preceding the election.

A member voting must write his name on the outside of the official outside envelope which shall contain his ballot sealed in the official inside envelope. The official outside envelope shall remain sealed until the voter's name has been checked off the list of qualified voters by the Secretary-Treasurer, and when opened, the sealed official inside envelope containing the ballot shall remain sealed and so be deposited in the official ballot-box. Such ballot must be delivered, personally or by mail, at the polls before the hour of 5 p. m., on the day of the election. The sealed inside envelope containing the ballot shall not be opened or the ballot counted until after the official closing of the polls.

If the member voting writes his name or makes any other marks or symbols by which he could be identified, either upon the official inside envelope or upon the ballot therein contained, that ballot shall not be counted.

Section 6—Polling Place

The polling place shall be the office of the Association. The polls shall be open between the hours of 10 a. m. and 5 p. m. on the date of the election.

Section 7—Procedure of Counting Votes

The Committee on Elections shall have a list of the qualified voters, and the name of each person voting must be checked off on that list. A suitable ballot-box shall be provided by the Secretary-Treasurer, in which all sealed envelopes containing the ballots shall be deposited and the same shall not be opened before the closing of the polls. After the polls are closed the Committee on Elections shall proceed with the canvass of the vote and shall make out a correct tally sheet which shall state the number of votes received by each of the candidates. The ballots properly sealed, and the tally sheet duly certified by each member of the Committee on Elections, shall be given to the President, who shall announce the result of the election at the annual meeting in December. The candidate receiving the greatest number of votes shall be declared elected. In case two or more candidates for any office receive an equal number of votes, election shall be determined by lot between such candidates. The ballots and tally sheet shall be kept on file for one year in the office of the Association and the tally sheet shall be open to inspection by any member entitled to vote.

Section 8—Election of Delegates and Alternates

The delegates and alternates to the California Medical Association shall be elected by the Council in conformity with the Constitution and By-Laws of the California Medical Association.

Article VIII

Funds and Assessments

Section 1—Annual Assessment of Dues

(*a*) The Board of Trustees, at its November meeting each year, shall fix the amount of the annual per capita assessment of dues for the ensuing year upon the active and associate members, which shall include the per capita assessment of dues for membership in the California Medical Association for the ensuing year.

Section 2—Payment of Dues

(*a*) Annual dues shall be due and payable on or before January 1 of the year for which they are levied and must be paid on or before April 1 of such year.

(*b*) If the dues, or any part thereof, of a member remain unpaid after April 1 of any year, the membership of such member shall cease automatically as of the due date of the indebtedness.

(*c*) A member losing membership because of nonpayment of dues may reapply for membership at any time.

(*d*) In a May issue of each year of the official publication shall be printed a list of those members whose membership has automatically terminated by reason of nonpayment of dues, under the heading "List of Those Whose Membership Has Terminated for Nonpayment of Dues for Current Year." Said publication shall be notification to all persons so listed that they are no longer in good standing or entitled to the rights, privileges or benefits of membership in the Association.

Section 3—Special Assessments

Funds may be raised by special assessment or in any other manner approved by the Board of Trustees.

Section 4—Waiver of Dues in Certain Cases

United States Medical Reserve officers and Red Cross officers who are called to active service shall, during the period of such active service, retain membership in this Association, without the payment of dues of this Association, other than their per capita assessment of dues for membership in the California Medical Association.

Section 5—Initiation Fees

The Board of Trustees shall fix the amount of the initiation fee for each class of membership, and the amount so fixed shall be payable as a condition to admission to membership in this Association.

Article IX

Sections and Branches

Section 1—Purposes, Formation, and Membership

Scientific Sections or geographical branches may be formed for the presentation, discussion, and the study of matters pertaining to the science and art of medicine. Each section or branch shall be permitted to arrange the time and place for holding its meetings, provided that the time does not conflict with the general meeting of the Association. New sections or branches may be created or existing sections or branches discontinued by the Council, provided that no existing section or branch at time of adoption of these By-Laws shall be discontinued by the Council without proper hearing and a two-thirds vote of the Council in favor thereof. No person shall be an active member of any section or branch with the right to vote who is not a member of the Association. Associate and other types of members of sections and branches is permissible, provided that unless they are nonsectarian Doctors of Medicine on active duty in the Federal service, they must be members of another component county medical society of the California Medical Association or other constituent state units of the American Medical Association.

Section 2—Officers and Authority

Each branch or section shall elect its officers from its own membership. No branch or section shall speak or assume any authority in the name of the Association. The Association shall not be liable for debts incurred by any section or branch. Each section and branch shall submit its Constitution and By-Laws or rules of government to the Council for approval.

Article X

PUBLICATIONS

Section 1—Official Publication

The Association shall publish and distribute under the supervision of the Secretary-Treasurer of the Association, an official publication in the interests of the Association, and of its members, and other publications as may be approved by the Council and by the Board of Trustees. The official publication shall be published at least once a month and may be given such name as the Council may from time to time determine.

Section 2—Allocation of Dues

Fifty cents ($.50) of the annual per capita dues levied shall be utilized for one year's subscription to the official publication of the Association in conformance with the United States postal regulations.

Section 3—Directory

A directory of all officers and members of all standing committees, except the Committee on Admissions, shall be printed in each issue of the official publication.

Article XI

COMMITTEES

Section 1—Standing Committees

The Standing Committees of this Association shall be as follows:

1. A Committee on Admission
2. A Committee on Professional Conduct
3. A Committee on Elections
4. A Committee on Scientific Work and Programs
5. A Committee on Membership and Organization
6. A Committee on Public Policy and Relations
7. A Committee on Certified Milk Production and Distribution
8. A Committee on Library
9. A Committee on Legislation
10. A Committee on Telephone Directories, Listings and Service
11. A Committee on Medical Education, Associated Societies and Technical Groups
12. A Committee on Industrial, Contract and Insurance Practice
13. A Committee on Postgraduate Activities
14. A Committee on Medical Economics
15. A Committee on History and Obituaries
16. A Committee on Medical Defense
17. A Committee on Entertainment
18. A Committee on Hospitals, Dispensaries and Clinics
19. A Committee on Museum and Pathological Exhibits
20. A Committee on Relief and Fraternal Relations
21. A Committee on The State of the Association

New Standing Committees may be created or existing Standing Committees may be discontinued by action of the Council, subject to the approval of the Association at its annual meeting.

Each Standing Committee, with the exception of the Committee on Admission, the Committee on The State of the Association, and the Committee on Professional Conduct shall have the right to appoint an advisory committee of not more than ten (10) members, which committee, at the discretion of the Standing Committee, may be invited to meet in an advisory capacity without the right to vote.

All Standing Committees, with the exception of the Committee on Certified Milk Production and Distribution and the Committee on The State of the Association, shall consist of three (3) members, each of whom shall serve for a term of three (3) years; provided, however, that upon adoption of these By-Laws one (1) member of each of the foregoing committees shall be appointed for a term of three (3) years, one (1) member for two (2) years and one (1) member for one (1) year, their successors to be elected annually for terms of three (3) years.

The Chairman of the Council shall designate the chairmen of the various Standing Committees, subject to the approval of the Council, with the exception of (*a*) the Committee on Scientific Work and Programs, of which the Secretary-Treasurer shall be the chairman; (*b*) the Committee on Certified Milk Production and Distribution, which committee elects its own chairman and secretary, subject to the approval of the Council; and (*c*) the Committee on the State of the Association, whose chairman is the President of the Association.

Section 2—Duties of Committees

(1) Committee on Admission

The Committee on Admission shall be a secret committee and its members shall be appointed by the Chairman of the Council and their identity shall be known only to the Chairman of the Council and the Secretary-Treasurer of the Association, and they shall hold office during the calendar year of their appointment or until their successors are appointed. This committee shall investigate the credentials, records and qualifications of all applicants for all types of membership and shall make its written recommendations thereon to the Council.

(2) Committee on Professional Conduct

The Committee on Professional Conduct shall, upon order of the Council, investigate and attempt to arbitrate all matters of dispute, controversy, contention or grievance arising between members or between members and others. This committee shall report monthly to the Council, with recommendations on any ethical or other matters assigned to it for investigation or arbitration.

(3) Committee on Elections

The Committee on Elections shall serve as election tellers in all elections of the Association, as provided for in these By-Laws.

(4) Committee on Scientific Work and Programs

The Committee on Scientific Work and Programs, subject to the approval of the Council, shall arrange for the programs of the general meetings and scientific exhibits of the Association. The Secretary of the Association shall be the chairman of this committee.

(5) Committee on Membership and Organization

The Committee on Membership and Organization shall each year make a survey of the licensed Doctors of Medicine in Los Angeles County and shall endeavor to bring into membership all Doctors of Medicine who are eligible to membership. From time to time it shall report to the Council making such recommendations as are deemed proper.

(6) Committee on Public Policy and Relations

The Committee on Public Policy and Relations, through itself and associates whom it may appoint, subject to the approval of the Council, shall be alert to place before the public, by means of the radio, press and other agencies, information on topics relating to scientific and organized medicine. The Council also shall have power to do the same.

(7) Committee on Certified Milk Production and Distribution

(*a*) Composition. The Committee on Certified Milk Production and Distribution shall be known as the Milk Commission of The Los Angeles County Medical Association and shall consist of five (5) members. The committee shall have the right, subject to the approval of the Council, to appoint not more than ten (10) persons, who may or may not be members, to act as an advisory committee.

(*b*) Terms and Election. The five (5) members shall serve for five (5) years, one (1) retiring each year. To fill this vacancy the Council shall appoint annually at its January meeting a member of the Association who shall serve five (5) years; provided, however, that the Council shall appoint at the January Council meeting of the year 1939, one (1) member to serve five (5) years, one (1) to serve four (4) years, one (1) to serve three (3) years, one (1) to serve two (2) years, one (1) to serve one (1) year, and thereafter their successors to be appointed by the Council annually for a term of five years.

(*c*) Organization and Election. At the organization meeting of this committee in January of each year, the committee shall elect from their number a chairman and a secretary. All members of the Committee shall serve without salary.

(*d*) Duties of Committee. The duties of the Committee shall be to supervise the production and distribution of certified milk in Los Angeles County.

(*e*) Budget. This committee will operate on a budget approved by the Board of Trustees, and shall make monthly reports on its activities and financial status to the Board of Trustees. It shall also make quarterly reports to the Council. All assets of this committee shall belong to the Association and shall be under the control of the Board of Trustees.

(8) Committee on Library

The Committee on the Library shall be responsible for the maintenance and the development of the library of the Association, and on fiscal matters shall be subject to the instructions and approval of the Board of Trustees.

(9) Committee on Legislation

The Committee on Legislation, subject to the approval of the Council, shall represent the Association in securing and enforcing legislation in the interest of public health and scientific medicine. As one of its duties, it shall maintain in the Secretary-Treasurer's office an organization plan arranged by Assembly and other districts to better secure the coöperation of members in its work.

(10) Committee on Telephone Directories, Listings and Service

The Committee on Telephone Directories, Listings and Service, subject to the approval of the Council, shall make surveys of telephone directories and investigations of telephone listings and service and make its recommendation to the Council.

(11) Committee on Medical Education, Associated Societies and Technical Groups

The Committee on Medical Education, Associated Societies and Technical Groups shall, subject to the instructions of the Council, endeavor to create proper liaisons between this Association and other recognized medical organizations as well as with the organizations of related professions such as dentistry, pharmacy, and nursing, and it shall also endeavor to bring about a proper understanding with nonmedical organizations or groups of technicians and others whose work has a bearing on or is related to the practice of medicine.

(12) Committee on Industrial, Contract and Insurance Practice

The Committee on Industrial, Contract and Insurance Practice shall keep in touch with matters and problems peculiarly connected with these types of practices and keep proper records thereon, and shall report their findings and make their recommendations to the Council.

(13) Committee on Postgraduate Activities

The Committee on Postgraduate Activities, subject to the approval of the Council and to the Board of Trustees, shall use its best efforts to promote postgraduate and clinical courses of instruction for members of the Association. This committee shall coöperate with the Committee on Postgraduate Activity of the California Medical Association, and with constituted medical schools, hospitals or other organizations doing such work.

(14) Committee on Medical Economics

The Committee on Medical Economics, subject to instruction from the Council, shall investigate and study problems pertaining to medical economics in general and with particular reference to Los Angeles County conditions and report its findings to the Council.

(15) Committee on History and Obituaries

The Committee on History and Obituaries shall compile and prepare for the archives and for the publications of the Association, suitable articles on the history of the Association and obituaries of deceased members, but in the purchase of memorabilia it shall expend only such moneys as approved by the Board of Trustees.

(16) Committee on Medical Defense

The Committee on Medical Defense, upon instruction of the Council, shall prepare plans and establish rules for the protection of the legal rights of members of this Association. It shall perform such other duties relating to legal matters of interest to the Association and its members as the Council and Board of Trustees may direct.

(17) Committee on Entertainment

The Committee on Entertainment shall coöperate with the Committee on Scientific Work and Programs and shall arrange for all meetings and parts of meetings of the Association in so far as the same are social in character.

(18) Committee on Hospitals, Dispensaries and Clinics

The Committee on Hospitals, Dispensaries and Clinics shall keep in touch with problems arising in the field of work of all types of hospitals, dispensaries and clinics, giving special attention to those activities that are, or tend to become a menace to the best interests of scientific medicine and the profession and its members. It shall maintain in the Secretary-Treasurer's office as complete and comprehensive information as may be deemed advisable.

(19) Committee on Museum and Pathological Exhibits

The Committee on Museum and Pathological Exhibits shall be responsible for the proper care and maintenance of exhibits in the rooms set aside for that purpose. It shall be subject to instructions from the Council, and its financial transactions must have the approval of the Board of Trustees.

(20) Committee on Relief and Fraternal Relations

The Council shall outline from time to time certain policies and duties which shall be executed by the Committee on Relief and Fraternal Relations, subject to the favorable recommendations of the Council and approval of the Board of Trustees.

(21) Committee on the State of the Association

(*a*) Composition and Meetings. The General officers of the Association, Board of Trustees, Council, and the Executive groups of all Standing and Special Committees and the Presidents and Secretaries of all Branches and Scientific Sections shall constitute a Committee on The State of the Association. This committee shall hold two (2) regular meetings each year, one in May and the other in October, at such place and time as the Council may designate. Additional special meetings may be called by the Council at any time, and at each meeting the chairman of each body or committee represented shall give a progress report on behalf of his committee or group.

(*b*) Officers. The President of the Association shall be the chairman and the Secretary-Treasurer shall be the Secretary of the Committee on The State of the Association.

Article XII

Miscellaneous

Section 1—Referendum

(*a*) A general or special meeting of the Association may, by a two-thirds vote of those present, order a general referendum, by mail, upon any question pending before or acted upon by the Board of Trustees or the Council, provided that not less than one-fifth of all the active members of the Association are present at such a special or general meeting; and when so ordered the Board of Trustees or the Council shall submit any such question to the membership of the Association for a final vote. A majority of the votes thus cast (unless otherwise provided by law) shall bind the Board of Trustees or the Council on the question so submitted to the membership. The Board of Trustees may, in like manner, order such a general referendum on any question pending before or acted upon by the Board of Trustees or the Council.

(*b*) Voting on Referendum. The Board of Trustees or the Council shall prescribe and determine the form of the question, matter or proposition so referred to the active members of the Association, and the time within which such vote shall be cast. Said vote shall be otherwise had and taken in the manner prescribed for contested elections.

Section 2—Rules of Order

The current edition of Roberts' "Rules of Order" (when not in conflict with the Articles of Incorporation and By-Laws of this Association) shall be the parliamentary guide for procedure at general meetings, and the meetings of the Association, and all meetings of the Board of Trustees, Council, and any other committees or groups within the Association.

Section 3—Amendments

(*a*) These By-Laws and any articles or sections thereof or any part of any thereof may be amended or repealed or new By-Laws adopted by an affirmative vote of a majority of the members of the Association entitled to vote.

(*b*) Any amendment or amendments or the repeal of any article or articles, section or sections thereof or any part of any thereof, may be proposed by resolution of the Board of Trustees or the Council, adopted by the affirmative vote of not less than a majority of all of the members thereof.

(*c*) After the adoption of any such resolution by the Board of Trustees or the Council providing for any such amendment or amendments or the repeal of any article or articles, section or sections thereof or any part of any thereof or for the adoption of any new by-law or by-laws, the Board of Trustees or the Council shall cause said proposed amendment or amendments or repeal or any new by-law or by-laws to be published in the official publication of the Association at least twice. Said proposed amendment or repeal or new by-law shall then be submitted by the Board of Trustees to the members of the Association entitled to vote, either at the next annual meeting of the Association or at any special meeting called for that purpose or by mail ballot. If a majority of all of the members of the Association entitled to vote cast their votes in favor of the adoption of any such amendment or amendments or new by-law or by-laws or of such repeal, these by-laws shall thereupon be amended accordingly.

(*d*) These by-laws and any articles or sections thereof or any part of any thereof may be amended or repealed or new by-laws adopted by the written assent of a majority of the members of the Association entitled to vote. Upon the filing of such written assent with the Secretary-Treasurer in the office of the Association, the Secretary-Treasurer shall certify to such amendment, repeal or new by-law so adopted and that the same has been adopted by a majority of the members of the Association entitled to vote.

Section 4—Repeal of Existing By-Laws

All articles and all sections and all parts of all articles and of all sections of the By-Laws of this Association existing at the time of the adoption of these By-Laws are hereby expressly repealed.

These by-laws shall supersede all existing by-laws and become effective:

(*a*) If adopted by the written assents of the members entitled to vote, immediately after receipt by the Secretary-Treasurer of written assents of a majority of the members of the Association entitled to vote; or

(*b*) If adopted by the vote of members, immediately after the announcement of the result of a vote taken at a regular or special meeting of the Association; provided that a majority of the members of the Association cast their votes in favor of the adoption of these by-laws; or

(*c*) If adopted pursuant to the method set forth in Article XIV, Section 3, of the existing By-Laws, immediately after the announcement of the result of a vote taken on the day of the annual meeting or at any special meeting called for that purpose; provided that notice and publication has been duly given and made as required by said Article XIV, Section 3, and that a majority of the membership cast their votes in favor of the adoption of these by-laws.

All officers holding office when these by-laws become effective shall complete the terms for which they were elected under the previously existing by-laws.

* * *

Addendum

Copy of Letter from the Los Angeles County Medical Association Committee on a Proposed Revision of the By-Laws of the Los Angeles County Medical Association

To Members of the Los Angeles County Medical Association:

For the information of members, the following comments are made:

(1) A fact of importance that must not be forgotten is that the Los Angeles County Medical Association is a corporation, and, as a corporation, is subject in every particular to the laws of California concerning nonprofit corporations, as outlined in the Civil Code of the State.

In the proposed revision, trustees (directors) will hereafter be elected, not by the Board of Councilors, but by the majority vote of the members of the Association. The law is specific on this point.

Other changes referring to the Board of Trustees, in whom, by law, the corporate, or material, interests are vested, are such as will make for perpetuation of policy and full safeguarding of the assets of the Association, a corporation.

(2) In the Council (Board of Councilors) is placed the determination of policy in matters medical (from both the scientific and organization standpoints). By "staggering" the terms of office, with seven men going in annually, each for three-year terms, this Council of twenty-four members (twenty-one elected members, plus the president, vice-president, and the secretary-treasurer), should be able to establish and maintain needed policies. It is specifically provided that each year at least two of the councilors elected must live and have their principal places of practice outside the 1937 city limits of Los Angeles, so that at no time would there be less than six members from outside the city.

Provisions are made for additional nominations of all officers from the floor at a general meeting.

(3) A large number of new committees (twenty-one in all) are provided, whose members likewise will have three-year terms, one member going out each year. These committees, it is anticipated, will stimulate active interest in the work of the Association on the part of a much larger number of members who are anxious to do their bit on behalf of scientific and organized medicine. It is provided also that all committees, together with the general officers and the chairmen and secretaries of the Sections and branches, shall meet twice yearly as a "Committee on The State of the Association" to discuss the work and needs of the Association and its subdivisions.

(4) The Disciplinary Code is revised so as to conform with that of the California Medical Association. . . .

(5) The Scientific Sections and geographical branches of the Association will continue as heretofore, with full authority to govern their own meetings and interests.

(6) A perusal of the revision will show that the remaining portions are taken either from the present By-Laws of the Los Angeles County Medical Association or the California Medical Association.

(7) In Article VII of the proposed by-laws, provision is made to retain in office until the expiration of the terms to which they were elected, all present officers. Upon the expiration of the aforesaid terms, the regular procedure as provided in these By-Laws will be followed.

(8) Article VIII provides that the annual dues shall be levied by the Board of Trustees, as in the existing By-Laws.

(9) The Committee wishes to express to Mr. Hartley F. Peart, the general counsel of the California Medical Association, its thanks and great appreciation for his efficient services and advice in passing on the many legal questions involved in the revision of these By-Laws.

(10) In conclusion, the undersigned committee begs leave to state that its members have held many meetings, discussing the changes submitted, and that these revisions represent the decisions reached after two years of considered thought. . . .

Respectfully submitted,

Committee on Revision of the By-Laws.
Edward M. Pallette, M.D., *Chairman*
George D. Maner, M.D., *Vice-Chairman*
E. Vincent Askey, M.D.
Lowell S. Goin, M.D.
George H. Kress, M.D.
John P. Nuttall, M.D.
Harlan Shoemaker, M.D.
Harry H. Wilson, M.D.

* * *

The following resolution was adopted by the Board of Councilors by unanimous vote at its regular meeting on July 12, 1937:

Whereas, The Committee on Revision of the By-Laws of the Los Angeles County Medical Association, since its appointment two years ago, and after many meetings and careful study of the existing by-laws, has submitted to the Board of Councilors its report, with a revision that incorporates the basic form of organization that has long been existent in the Los Angeles County Medical Association, but has also added thereto provisions designed for the years to

come, to safeguard and promote the material, scientific and organization interests of the Association; now, therefore, be it

Resolved, That the Board of Councilors accepts the report of the committee, and approves in principle the changes that have been submitted; and be it further

Resolved, That the Committee on Revision is instructed to prepare the revision for publication in the bulletin of the Association and to use all proper endeavor to secure as full a vote as may be possible, when the ballots on its adoption are sent out to the members of the Association.

* * *

Upon motion duly made and seconded, the Board of Councilors then, by unanimous vote, formally ordered the revision of the By-Laws to be submitted to the membership for vote as provided for in Article XIV, Sections 1 to 4, of the present By-Laws.

* * *

The Board of Councilors at a special meeting on August 23, 1937, upon motion duly made and seconded, set Monday, October 25, 1937, at 7:30 p. m., as the time for the special meeting of the Association to receive the report and action on the ballot on the revision of the By-Laws.

* * *

NOTICE

In accordance with Article XIV, Sections 1 to 4, of the present By-Laws of the Los Angeles County Medical Association, the members are notified that the proposed revision of the same, which follows, will in due time be submitted to the members for their written assent thereto or vote thereon. The proposed revision will be printed twice in the official bulletin of the Association. All ballots must be received at the office of the Association, 1925 Wilshire Boulevard, Los Angeles, prior to 5 p. m. on Monday, October 25, 1937.

THE LURE OF MEDICAL HISTORY†

THE CLINICAL CAREER OF JAMES BLAKE (1815–1893)

II*

By CHAUNCEY LEAKE, Ph.D.
San Francisco

THE extraordinary scientific career of James Blake, M. D. (1815-1893), California's first great scientist, has been indicated by a brief discussion in Dr. Henry Harris' *California Medical Story* (San Francisco, 1932). The amazing versatility of the man, combined with his modesty and the romantic mystery regarding his reasons for ever coming to California, led Doctor Harris to refer to him as a character of the sort typified in *Lord Jim* and *Arrowsmith.* Blake gave up what was obviously destined to be a brilliant scientific and medical career in London to come to St. Louis in 1847, and from there he migrated to Sacramento in 1850. He engaged at once in clinical practice, and as soon as medical journals began to appear in California he contributed clinically with as much skill and versatility as he showed in science generally. In science it may be recalled that he was the West's first great geologist, an analytical chemist of great skill, a pioneer meteorologist, a zoölogist of distinction, an anthropologist, and a great intellectual pioneer in physiology and pharmacology.

BLAKE IN ENGLAND

Before leaving England, Blake had demonstrated his interest and acumen in clinical medicine. He had become a member of the Royal College of Surgeons by 1842, and also a Fellow of the Royal Medical and Chirurgical Society. His remarkable physiological experiments on the action of various drugs and salts had already aroused much interest. His first clinical contribution appeared in 1839, and is so interesting and significant that it is quoted here in full. It came as a letter to the editor of *The Lancet,* dated from University College, February 23, 1839, and was published in the March 9, 1839, issue of that journal, in reply to a reference by Liston to some of Blake's work published in a previous number.

To the Editor of The Lancet.

Sir: In the report of a clinical lecture, delivered by Mr. Liston at the University College Hospital, which appeared in your Journal of February 2nd, I find it stated that, in alluding to some experiments I had performed on the obliteration of veins in animals, Mr. Liston observed, "that I had found the blood in the veins coagulated sixteen hours after the introduction of the needles." I would remark, however, that not only was the blood coagulated after the needles had remained in that time (a phenomenon which, probably, takes place much earlier), but that, on killing the animal some days afterwards, the vein was perfectly obliterated, owing to the contraction of the vessel around the coagulum. Such was the substance of the remarks made by Mr. Liston; but which, owing to an error of your reporter, have been misstated.

I have not published any account of these experiments, not having had an opportunity of verifying my observations on the human body; and it is very probable, as Mr. Liston observes, that the veins in the human subject might not be so readily obliterated as in dogs. The subject, I think, is one worthy the attention of the profession, as any proceeding which tends to lessen the irritation produced in causing the obliteration of varicose veins must be of decided advantage, owing to the violent inflammation which often follows even slight injuries when occurring in a part which is the seat of this diseased state of the vessels.

From the result of my experiments I should conclude, that by arresting the circulation in the vessel for a few hours (twelve or sixteen); by passing a couple of needles under it and the twisted suture; and by the application of gentle external pressure, the slight degree of irritation, thus produced, will be sufficient to cause such an effusion of lymph and serum in the sheath of the vessel as to lead to its permanent obliteration. I remain, Sir, your obedient servant. JAMES BLAKE.

University College, February 23, 1839.

It is amazing that Blake should have so early considered the problem of the obliteration of varicose veins in so sound and rational a manner. Here is a problem which, ninety-eight years later, is still under considerable discussion.

BLAKE'S CALIFORNIA CAREER

After the long journey over the plains from St. Louis, on which Blake later relates that he encountered much cholera, he apparently settled into the strenuous frontier medical practice of the California Gold Rush. The first medical journal in California appeared in 1856. Blake at once began to write for it, contributing articles reflecting his

†A Twenty-Five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of CALIFORNIA AND WESTERN MEDICINE. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.

*Part of a lecture given in Toland Hall, University of California Medical School, San Francisco, in the series on the history of the institution, arranged by the Division of the History of Medicine.

This is Paper II of the series. For other articles in the symposium, see CALIFORNIA AND WESTERN MEDICINE, November, 1937, on page 321.

JAMES BLAKE, M. D. (1815–1893)

practice. These were of a strictly clinical nature, and dealt with gunshot wounds, diphtheria, and spontaneous rupture of the vagina in labor. Blake could not stand hypocrisy or misrepresentation on the part of his professional colleagues. He vigorously and fearlessly exposed the attempt of an unqualified colleague to cover up, by reporting as an accident, what was a mistake in technique. In this exposé Blake makes the first use that I can find in American medical literature of the theory of probability.

In 1860 appeared an astonishing report from Blake on the treatment of phthisis. In this communication Blake vigorously denies that drugs have ever been of any value in tuberculosis. He asserts that the only success he has ever had in handling the disease is to have his patients go on a camping trip in a sunny, sheltered spot, where they were to do no work, but just to take life easy. This is the modern open-air, sunshine and rest treatment for tuberculosis which apparently was introduced by Blake twenty years ahead of those who usually receive the credit for it.

Blake moved to San Francisco in 1861 to become editor of the *Pacific Medical and Surgical Journal*. Some of his editorials were remarkable. He advocated the establishment of a board of health in order to control the possible entry of epidemic diseases into the port of San Francisco. One of his editorials, dealing with war, might appear currently in the *Nation* or the *New Republic*. Blake could see no sense in the fraternal strife then raging in this country, and he very emphatically said so. It is rather astonishing to find that he was reviewing in California the outstanding medical discoveries made in Europe within a few months of their publication abroad. Before a year passed, Blake had resigned his editorship on the grounds that the number and quality of the contributions to the journal were such as not to make it worth his while.

In 1862, Dr. H. H. Toland of San Francisco organized a medical college, on the faculty of which Doctor Blake appeared as professor of midwifery and diseases of women and children. This post he seems to have relinquished during the squabble when the Toland Medical College became the Medical School of the University of California in 1872. But apparently he later served on the faculty again. We have record of only two of his activities at the old medical building on Stockton Street—his inaugural address at the beginning of his teaching career and an address to one of the graduating classes. Dr. Joseph P. Widney, of the class of 1866, the Medical School's oldest living graduate, has written from Los Angeles that Doctor Blake was one of his finest teachers. Surprisingly, Doctor Widney writes that Blake was not at all "scientific" in his teaching, but very practical, and that his example of gentleness and dignity made a great impression on his classes.

In 1876 Blake opened a tuberculosis sanitarium near Mount St. Helena. After selling it to one of his patients in 1880, he moved with his housekeeper, Mrs. Woods, to Middletown. Here he returned to his earlier scientific studies, especially on the relation between isomorphous properties of inorganic salts and their physiological actions. He probably saw few patients. Old residents of Middletown recall him as a gentle old man, interested in flowers, who never refused to treat a sick person, but who never accepted a fee. Yet his work was soon forgotten.

An interesting example of the unappreciated importance of Blake's work may be found in his studies on thallium. In 1934, in connection with the control of rodent pests by thallium-poisoned grain, an outbreak of thallium poisoning in humans occurred in Fresno. No one seemed to know much about acute thallium poisoning, although its chronic toxicity had been studied in connection with the use of its salts in cosmetics. I am afraid that I took rather an impish delight in calling attention to the fact that Blake had reported upon the acute toxicity of thallium compounds in 1892. He had even determined the rate of its excretion from the body, by means of the spectroscope. Of course, the publication of his work in French may have led to its neglect by English-speaking scientists.

BLAKE'S INFLUENCE

I think that the wide scope and significance of Blake's scientific achievements entitle him to be called "California's first great scientist." He came here in the glamorous days of the Gold Rush and entered vigorously into the intellectual life of the new commonwealth. His theoretical contributions on the relationship between chemical constitution and physiological action inaugurated an important line of scientific investigation. We are particularly interested in this matter in the Pharmacological Laboratory of the University of California Medical School, where we have been successful in developing important chemicals for use as anesthetic agents and for use in the treatment of amebiasis,

through methods of study involving Blake's concepts. Unfortunately his work seems to be little known or appreciated. Few know of his insistence that the open-air rest treatment for tuberculosis is the only satisfactory method. Blake, himself, had the experience at one of the Physiological Society meetings in England of hearing a report on the action of digitalis on the arteries, which was claimed as a new discovery, when in fact he had described it himself fifty years previously. As the leading scientist of that remarkable company of spell-binding adventurers who helped to make California, he deserves wider appreciation than he has so far received. As a clinician, too, Blake has been greatly neglected. This may have resulted from his failure to mix well with his professional colleagues in California. Probably he did not have a very high opinion of them, particularly after his attempt to expose malpractice in Sacramento, and his subsequent experiences in the political maneuvering involved in the two San Francisco medical schools. He did not attend medical meetings after leaving San Francisco in 1876 (when he opened a tuberculosis sanitarium near Mount St. Helena), and he did not become licensed until 1884, when he had to. His lack of interest in his medical confréres seems to have been reciprocated by a lack of interest in him and his work which, at least, has been unfortunate for his memory.

LIST OF THE CLINICAL CONTRIBUTIONS OF JAMES BLAKE, M. D. (1815-1893)

COMPILED BY MARJORIE D. WILLIAMS

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Cure of coryza by cubebs. Lancet, 1:958-959 (March 21), 1840.
Abnormal distribution of the thyroid arteries. St. Louis Med. and Surg. Jour., 5:551-553 (May), 1848.
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On granular ophthalmia. Calif. State Med. Jour., 1:234-242 (Oct.), 1856.
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Case of fibrous and bony tumor impeding delivery. Calif. State Med. Jour., 1:457-463 (April), 1857.
Remarks on a case of rupture of the vagina. Pacific Med. and Surg. Jour., 1:141-145 (April), 1858; 1:267-268 (July), 1858.
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Case of poisoning by laudanum-belladonna used as an antidote. Pacific Med. and Surg. Jour., 5:113-115 (April), 1862.
Case of leukocythemia. Pacific Med. and Surg. Jour., 5:114-146 (May), 1862.
Case of primary pyemia. Amer. Jour. Med. Sciences, 45:67-70 (Jan.), 1863.
Cases showing the influence of living in the open air in the treatment of phthisis. Amer. Jour. Med. Sciences, 46:323-330 (Oct.), 1863.
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Case of great rapidity of pulse after labor. Trans. Medical Society of California, pp. 124-125, 1875.
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On the insomnia of dyspnea. San Francisco Western Lancet, 12:535-538 (Dec.), 1883.
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CLINICAL NOTES AND CASE REPORTS

SULFANILAMIDE POISONING CHARACTERIZED BY DYSPNEA AND LOSS OF CONSCIOUSNESS*

By J. C. GEIGER, M.D.
San Francisco

ON the evening of October 6, 1937, a female patient, G. E., age thirty-nine, was brought by ambulance into the Central Emergency Hospital. The patient was decidedly mentally confused, was semiconscious, and showed slight dyspnea, but was not cyanotic. The blood pressure was 98/58; the pulse, 100; the temperature was normal; and the respirations numbered 20.

* COPY OF LETTER OF TRANSMITTAL

San Francisco, October 16, 1937.

To the Editor:—I am sending you a short case report on sulfanilamide poisoning, which was brought to my attention from the Central Emergency Hospital.

You, no doubt, recall in the issue of the *Journal of the American Medical Association* of September 25 several reports on sulfanilamide poisoning.

The case mentioned in my report was so totally different from these and brings out so definitely that in any case showing sensitiveness to the drug every care should be used in its further administration, that I believe it will be of interest to you.

Sincerely,
J. C. GEIGER, M.D.,
Director of Public Health.

Because of the mental confusion, loss of consciousness and other symptoms suggestive of shock, there was administered a mixture of oxygen and carbon dioxid, and within thirty minutes the patient showed considerable improvement. The mental confusion, however, did not clear for over two hours. The patient was kept in the hospital over night and discharged as normal the following morning. The history of the probable cause of the illness is, briefly, as follows:

For several months the patient had been treated for abscesses of the Bartholin glands, the causative organism having been stated to be one of the streptococci group. About thirty days ago, the local treatment was supplemented by a course of sulfanilamide, consisting of 80 grains, administered over a period of forty-eight hours. Because the patient complained of vertigo and nausea, which lasted twenty-four hours, the use of sulfanilamide was discontinued. On October 4, however, the patient was again seen and 40 grains administered. The nausea experienced after the first administration of the drug reappeared. On October 5, 20 grains were taken by the patient about noon. At 5 p. m. the nausea became intensified, the patient complained of dizziness and muscular weakness, and later became unconscious. The ambulance was called and the patient removed to the Emergency Hospital.

Department of Public Health,
City and County of San Francisco.

UNDULANT FEVER: ITS TREATMENT WITH METAPHEN*

By K. H. Abbott, M. D.,
F. F. Abbott, M. D.
AND
C. N. Abbott, M. D.
Ontario

IT is of more than passing interest that the last decade has brought to the medical world so many new forms of therapy, so that it is impossible to know and try every type of method for even a few diseases. However, we believe the repeated success in chemical treatment of undulant fever using the preparation "metaphen" (4-nitro-anhydro-hydroxy-mercuri-ortho-cresol), is of sufficient interest to be recorded. In this paper we will report cases seen in private practice, and in the San Bernardino County Charity Hospital, which have been treated successfully with metaphen.

Since the establishment of the etiological factor by Evans as due to the same or a closely-related organism to that which causes Bang's disease in cattle, a voluminous literature has accumulated on every phase of this disease. This is particularly true of the literature pertaining to its therapy; however, there have been a number of excellent reviews of the subject (Lieberherr, Stepp, Sée, Angle, Vasile, Arespacochaga, Domingo, and others).[1]

In attempting to create either active or passive immunity in the afflicted individual, vaccines of various types and antisera have been used. As early as 1923 DeFinis[2] applied a specific vaccine which has since been widely used with both favorable and unfavorable reports.[3] More recently these vaccines have been used intravenously, possibly with more encouraging results.[4] Wherry, et al.,[5] and more recently Bannick and Magath[6] and others,[7] have reported rapid recovery from undulant fever, with no relapses, in the use of Foshay's immunized goat antisera. Favorable results have also been reported from the use of various vaccine filtrate[8] such as "Abortin," "Brucellin," and "Mellitine." Protein shock therapy[9] has been used advantageously in the more chronic stages, while immunotransfusions of convalescent blood or serum have brought definite and prompt results in the more acute types.[10]

The only physical therapeutic methods reported have been roentgenotherapy[11] and short-wave radio-therapy,[12] with very questionable results.

Chemotherapy of undulant fever has been investigated by many and discarded by just as many as have tried it.[13] The acridine dyes have been favorites of the majority of the writers,[14] and there are

* A Review of Immunological, Physical and Chemical Therapeutic Measures, and Report of Ten Cases Treated with Metaphen.

From the Department of Medicine, College of Medical Evangelists, Loma Linda and Los Angeles, California.

1 Lieberherr, W.: Wien, arch. f. inn. Med., 24:101-128, 1933. Stepp, W.: Klin. Wchnschr., 9: 1047-1052, 1930. Sée, P.: Clinique, Paris, 28:275-277 (July), 1933. Angle, F. E.: J. A. M. A., 105:939-942 (Sept. 21), 1935. Vasile, B.: Riv. Son Siciliana, 22:1390-1407 (Sept. 15), 1934. Arespacochaga, J.: Med. ibera 2:699-704 (Nov. 26), 1932. Domingo, P.: Rev. méd. de Barcelona, 23:204-212 (March), 1935.

2 DeFinis, F.: L'imunoterapia dii tifo, dei paratifi a della febbre Mediterranea. Con i vaccini lissizzati Cristina é Coronia. Pediatria, 41:11-23 (Jan. 1), 1923.

3 Cazalas, X.: Paris Med. 2:16 (Aug. 25), 1928. Cumston, C. G.: M. J. and Rec., 121:219-220, 1925. Guiffre, M.: Pediatria, 35:345-358 (April 1), 1927. Prausnitz C.: Med. Klin., 25:135-137 (Jan. 25), 1928. Schilling, G. S., Magee, C. F., and Leitch, F. M.: J. A. M. A., 96:1945-1948 (June 6), 1931. Angle F. E.: J. Kansas M. Soc., 30:323, 1929. Harris H. J.: N. Y. State J. Med., 34:1017-1021 (Dec. 1), 1934. Auricchio, L., cited by Evans, Alice C.: Studies on Brucella Alkaligines Melitensis. Bull. 143, Hyg. Lab. U. S. P. H. S., page 3. Simpson, W. M.: Ann. Int. Med., 4:238-259, 1930.

4 Vannucci, F.: Gior. di clin. med., 16:671 (June 10), 1935. d'Filippe, P., and Locatelli, G.: Boll. d. Soc. med. chir., Pavia, 49:83, 1935. Sella, M.: Terapia, 24:129 (May), 1934. Sella, M., and Drei, G.: Gior. di clin. med., 15:947 (Sept. 20), 1934. Lorenzoni, L.: Rassegna itnerza di clin. e terap. 16:1119 (Nov. 15), 1935. Cicognani, L. L., Minerva med., 2:717 (Dec. 22), 1935. Liverani, E.: Policlinico (sez. prat.), 42:1082 (June 3), 1935.

5 Wherry, W. B., O'Neil, A. E., and Foshay, Lee: Am. J. Trop. Med., 15:415-426 (July), 1935.

6 Bannick, E. G., and Magath, T. B.: Proc. Staff Meet, Mayo Clinic, 11:17-20 (Jan. 8), 1936.

7 Ashworth, O. O., and Pinckney, M. M.: South. Med. and Surg., 97:517 (Sept.), 1935.

8 *("Abortin")*, Cambessédis, H.: Rev. de med. et d'hyg. trop., 25:256 (Sept.-Oct.), 1933.

("Mellitine"), Melnotte, P., and Masson, P.: Rev. de med. et d'hyg. trop., 25:241-245 (Sept.-Oct.), 1933. Debono, J. E.: Lancet, 1:374-375 (Feb. 16), 1935.

("Brucellin"), Huddleson, I. F., and Johnson, H. W.: Am. J. Trop. Med., 13:485-504 (Sept.), 1933.

9 Cambessédis, H.: Rev. prat. d. mal. d. pays chaud., 15:540-549 (Dec.), 1935. ——. Rev. de med. et d'hyg. trop., 27:99, 1935. Beaumont, G. E., and Page, A. P. M.: Lancet, 2:940 (Oct. 26), 1935. Miller, S.: Lancet, 1:1177 (June 3), 1933. Manson-Bahr, P.: Lancet, 1:1178 (June 3), 1933.

10 Vidella, C. A., and Rey, J. C.: Hosp. argent., 4:80 (July 15), 1933. Kennan, T. F.: Virginia M. Monthly, 62:34 (April), 1935.

11 Tutolmini: Klin. med. (No. 3), 12:468, 1934.

12 Izar and Moretti, P.: Klin. Wchnschr., 14:46-47 (Jan. 12), 1935. ——. Riforma med., 50:1035-1039 (July 7), 1934.

13 Arespacochaga (see Bibl. No. 1), Domingo (see Bibl. No. 1), Hanau, G.: Gazz. d. osp., 54:1433-1435 (Nov. 12), 1933. Zimmerman, E.: J. A. M. A. (Abst. 1), 134:215-221 (June 14), 1935. von Wicht, E.: J. A. M. A. (Abst. 1): 131:54-76 (Feb. 28), 1934.

14 *(Acridine dyes)*, Jones, A.: Brit, M. J., 1:645 (March 30), 1935. Thurber, D. S.: Canad. M. A. J., 23:665 (Nov.), 1930. Arespacochaga (See No. 1). Simpson (See No. 3).

a few encouraging reports, but on the whole they have all been rather disappointing. Baltanski[15] reviewed the status of arsenical therapy, including the arsphenamines, and has shown they are all of little or no value. Thionin and methyl violet, which are known to inhibit the alkaligines organisms *in vitro,* have been used as enemata for the intestinal infections seen in a few instances, but the response was very slow and probably of no specific value.[16] Martinez and Gatzi[17] tried intravenous gold therapy ("Lopion" and "Salganol"), and Assmus[18] reported only slightly favorable response to "argochrome" (silvermethylthionin chlorid). Quinin bismuth iodided has also been used with apparent success, where vaccine therapy failed.[19]

Of the various mercurial preparations that are in vogue, probably none has received such wide publicity as has mercurochrome (220-soluble), and yet with such disappointing results; particularly is this true with its intravenous use. The reports of Todd[20] and Simpson[21] show that its use in undulant fever is no exception.

In 1933, Fortney[22] reported the use of another mercurial preparation "metaphen," in treating undulant fever. The patient was a 41-year old white female, who had been sick only a short time when an agglutination test of the patient's blood serum with melitensis organisms was found positive in dilutions up to 1:640. Ten cubic centimeters of a solution of metaphen (1:1000), was given intravenously and a marked change in her condition was noted within a few hours. There were no untoward reactions from its use, she experienced no more chills, and her temperature did not rise above 101 F. Four days later another 10 cc. of metaphen was given intravenously and there was a prompt return of the temperature to normal, and she was discharged from the hospital two days afterward. In the next three weeks her temperature was taken every four hours, and it did not rise above 98.6 F.; at the end of this time the agglutination reaction for melitensis was positive up to 1:2560 dilution. The patient remained well.

Entirely on empirical reasons we have used and encouraged our colleagues to use metaphen in cases of undulant fever. We had not until recently seen the above case report. Most of the following cases were seen in private practice and for pecuniary reasons are not as completely followed with laboratory tests as they might be, but they serve to show the value of metaphen in treating fairly early and acute cases of undulant fever.

REPORT OF CASES

Case 1.—Miss H. P., a school girl of 16 years, was taken ill on July 2, 1929, with chills, fever and generalized aching, quit work at a cannery and went to bed. She tried to work the next day but had to return to bed, where she remained up to the time of the first examination on July 22. During the week prior to this date she had four chills. Other complaints were cough, a small amount of sputum, vomiting once, continued fever and sweating. On the day she was first seen her temperature ranged from 98.6 to 101.5.

Physical examination revealed an only fairly well nourished, well-developed girl lying in bed sweating. Her temperature was normal and her pulse 70. There were no other findings of note. Her urine was normal, while the blood count revealed 15,200 leucocytes with 82 per cent neutrophiles and 18 per cent lymphocytes. In spite of "aspirin" her temperature rose to 103.2 (pulse 108), on July 24 when blood cultures were taken and following this 10 c. c. of metaphen (1:1000) was given intravenously. Soon after this she experienced a mild chill, but her pulse remained at 120. On the following day her temperature was 99.0 and pulse 90. She had no fever on the 25th, but 10 c. c. of metaphen was again given. From then on she gained in strength and had no fever, making a rapid recovery. The state laboratory report was received on July 26, 1929, showing a positive agglutination for undulant fever in dilutions up to 1:640.

* * *

Case 2.—Mrs. C. H., age 41, was seen at her home at 1 p. m. on August 17, 1931. She had not been well for six weeks due to chilly spells, aching all over and weakness. Two weeks previous she took her temperature and found it to be 102 F. Later it went up to 103 F. In the mornings it was 99. She had "waves of sweating, slight cough and headaches," but in between times her only complaint was weakness. Physical examination was negative, aside from fever 100.6 F., pulse 100, weakness and generalized profuse sweating. Blood cultures and agglutination tests were made, and the latter was positive for undulant fever in dilutions up to 1:1280. This report was received on August 19, when her temperature ranged from 100 to 102.2 F. The next day 10 c. c. of metaphen (1:1000) was administered intravenously when her temperature was 102.6 F. The next day her temperature went up to 102 and gradually dropped each day, so that on the 25th the highest was 100.8 and the patient was feeling much better. Another 10 c.c. of metaphen was given intravenously. Her temperature ranged from 98 to 100 up to August 29 and from then on remained normal. Aside from general weakness which gradually disappeared over several weeks' time she made an uneventful recovery and has had no relapses.

* * *

Case 3.—Mr. E. P., white, 20 years of age, who became ill early in October, 1931, was sick two weeks with fever. He was thought to have influenza. His fever returned to normal and he returned to work three weeks later. Then he promptly had a re-occurrence of the fever which this time was shown to be due to undulant fever by agglutination tests (dilutions up to 1:1280). This was a very typical case with fever running up to 103 F. He had lost 25 pounds in weight and was having the usual severe sweats, and generalized aching. After the diagnosis was established the only treatment given was metaphen, 10 c. c. of 1:1000 solution intravenously. This was given every fifth or sixth day. Although his temperature returned to normal in less than a week, it rose a little each week for about one month and then remained normal. Treatment was continued for nine weeks. He has had no return of symptoms.

* * *

Case 4.—J. C. P., 81 years of age, a dairyman, when seen on December 9, 1933, had been ill for two weeks. The onset began with epistaxis followed by backache and neckache. Vomiting had occurred two days previously. Physical examination revealed an acutely-ill elderly man. His temperature was 101.8 and his pulse was 80. Blood was taken for cell count and agglutination tests. He was treated symptomatically with acetylsalicylic acid gr. v every three hours. The blood count showed 9,000 leucocytes, of which there were 46 per cent segmented neutrophiles, 12 per cent "stab" forms, 23 per cent lymphocytes and 6 per cent monocytes. The urine contained 2+ albumen, hyalin and granular casts. In spite of a slight drop in temperature, he appeared very acutely ill, and on the 17th of December a positive agglutination for undulant fever in dilutions up to 1:1280 was obtained. Ten c. c. of

15 Baltanski, E.: Presse med., 41:1154 (July 19), 1933.

16 Leavell, H. R., Preston, M. A., and Amoss, H. L.: J. A. M. A., 95:960-963 (Sept. 20), 1930.

17 Martinez, T. H.: Medicina, Madrid, 3:659-670 (Nov.), 1932. Gatzi, W.: Schweiz. med. Wchnschr., 64:858-9 (Sept. 15), 1934.

18 Assmus, H.: Klin Wchnschr., 9:1131 (June 14), 1930.

19 Lop: Marseille-méd., 1:413-414 (March 25), 1932.

20 Todd, M. L.: Mil. Surgeon, 72:37-39 (Jan.), 1933.

21 Simpson (See No. 3).

22 Fortney, A. C., Minnesota Med., 16:335 (May), 1933.

metaphen 1:1000 was given intravenously and on the next day his temperature was 98.2 with no albumen or casts in his urine. Metaphen (10 c. c.) was again given on the 19th. He continued to improve, with no fever and normal urine, making an uneventful recovery.

Case 5.—(San Bernardino County Charity Hospital, No. 34175). Mrs. F. G., white, age 21 years, entered the hospital on June 27, 1934, complaining of periods of fever for the past three years. For three weeks she had had a constant fever running up to 103 F. There was a slight cough for the same time and her appetite was poor, with a slight loss in weight. The laboratory work was negative, aside from a positive agglutination of her blood serum with undulant fever organisms in dilutions up to 1:640. Her temperature on entrance was 102 and on the 28th, 29th and 30th of June it rose to 103 with 101 being the low point. Treatment consisted of biweekly injections of 10 c. c. of 1:1000 solution of metaphen. The temperature dropped by lysis reaching normal first on July 5. It rose slightly to 99 on the 11th, 12th, and 13th of July but remained normal from then on. Her last medication was on July 21.

Case 6.—Mr. C. R. M., 48 years of age, Italian, when seen on January 20, 1934, had been ill three days with fever, backache, pains in right side of chest and sore throat. He had a slight cough and had raised a little blood-tinged sputum. His temperature was 102.8, pulse 120. When examined, the only positive findings were inflamed throat, fever and sweating. He was treated symptomatically, because a blood culture and agglutination tests were negative for undulant and typhoid fevers. His urine contained 3+ albumin but was otherwise negative. His fever continued ranging from 103 F. to 104 F. each day. At times there was dullness and fine crepitant rales in the left lower chest. On January 24 a positive agglutination for malta fever was reported in dilutions up to 1:200. His fever was 103.2 at 5 p. m. and he was given metaphen 1:1000, 10 c. c. The next day he felt a little better and there was no albumin in the urine. The metaphen was repeated on January 25 and 27, and on the latter date his temperature dropped to 100.4. The next day it was normal and did not rise above 98.5 from then on.

Case 7.—H. W. V., a white male of 40 years, had not been feeling well for two months previous to examination. About one month previous he had been treated, with only moderate relief, with salicylates for a supposed spondylitis. Two weeks previous he had run a fever of 100 F. to 102.5 F. for one week. He was then again complaining of fever and malaise with generalized aching. His fever was 100.8 F. and he was sweating quite freely. A blood culture was taken and three days later the agglutination for undulant fever was positive in dilutions up to 1:1280. He was given 10 c. c. of metaphen (1:1000) intravenously, which was repeated in twenty-four hours. His temperature promptly dropped to normal and remained there. He steadily gained in strength and in two weeks' time was in normal health. He remained in good health up to the time of his execution in Canada for the "hatchet murder" of his mother!

Case 8.—Dr. E. P. (the father of the patient in Case 3). The case was a rather mild one; onset was rather sudden with general malaise, moderate amount of sweating and complete anorexia. The temperature was not high at any time (99 to 100.6). The diagnosis was made at the end of the second week by blood serum agglutination tests: these were positive in dilutions up to 1:640. The only medication was intravenous injections of 1:1000 solution of metaphen. Seven injections, 10 c. c. each, were given, three the first week and one weekly thereafter. Fever recurred for a period of five weeks. Recovery was gradual, but uneventful.

Case 9.—Mr. A. W., Jewish male of 43 years, a livestock dealer. His history was similar to others: Malaise, anorexia, generalized aching and severe sweats. Two attacks occurred in two weeks, when he became acutely ill with a high fever, 104 to 106 F. He was in extremis when 10 c. c. of metaphen 1:1000 was given intravenously. His temperature began to drop in a few hours and metaphen was repeated every twelve hours for four days. His temperature dropped to normal in 36 hours; the metaphen was continued every other day for a week, then once a week for four weeks. He made an uneventful recovery with no recrudescence of symptoms.

Case 10.—Mr. A. P., a business man 43 years old, became ill on June 11, 1935, with a sore throat, general malaise, sweating and fever. The pharyngitis cleared up rapidly, but he continued to run a daily fever of 99 F. in the morning to 103 F. in the afternoon. Blood cultures and agglutination tests were made, and on June 24 they were reported positive from two different laboratories (dilutions 1:80 and 1:400 using different strains of organisms). By this time he had a foul-bloody diarrhea, with more cough and definite congestion in the lower lobe of the left lung. He was given 10 c. c. of metaphen (1:1000) intravenously on June 24, 25, and 26. He continued to have fever up to 102 until the 29th when it was normal and remained so. He rapidly gained in strength and on July 16 was feeling very well, and nearly as strong as before this illness. The stools were examined for ameba and other parasites, but none were found. He was last seen on April 11, 1937, and has had no relapses.

In contrast with Case 9 we give the following brief review of a similar case which was not treated with metaphen, but with lysed vaccine intravenously.

Case 11.—(San Bernardino County Charity Hospital No. 35555), G. B. J., a white male, was admitted to the hospital with a diagnosis of Malta fever, and was again proven positive by repeating the agglutination tests (the dilution figures have been lost). He was in an acute condition, with multiple body sores and extreme joint pains. He was not given metaphen, but "lysed vaccine" was administered intravenously, 0.5 c. c., 0.70 c. c., and 1.0 c. c. on the first, third and fifth days respectively. He failed to gain and died on the sixth day.

In addition to these we have had three patients with typical symptoms and findings of undulant fever, but failed to give positive agglutination tests or cultures. Every one of these responded very rapidly to metaphen therapy. Because of these cases and others, we have been led to believe that it is quite possible that many of our cases of undulating chronic fevers with negative agglutination test may be due to melitensis, but because of lack of the proper strains of organisms being used as antigens we fail to diagnose them.

COMMENT

Angle[1] has pointed out that we must be extremely careful in evaluating therapeutic measures in a disease which is so prone to remissions. He asks the question, "What are the criteria by which one can establish that the patient is cured?" and he answers this by postulating six rules to govern one in evaluating therapeutic measures. "1. There is a definite disappearance of his subjective symptoms. 2. There is an increase in weight. 3. There is a gradual disappearance of fever. 4. The agglutination of the blood (with melitensis organisms) diminishes. 5. The blood picture returns to normal. 6. The neurologic symptoms subside." These rules are of value and we agree with all, except the third, for we have repeatedly seen in our cases

treated with metaphen that the fever may rapidly return to normal. This is a definite contrast to the many weeks and months one waits to see the benefit from vaccine or acridine dye therapy.

The toxic reactions seen with the acridine dyes (also methyl violet), when administered intravenously were not encountered with metaphen in our series; however, one must not forget that metaphen is a mercurial and, like other organic or inorganic mercurial compounds, may cause kidney and liver damage. Peculiarly enough, it seemed to aid in stopping albuminuria in two of the patients in this series.

SUMMARY

1. Ten† cases of undulant fever treated with metaphen and one by the lysed vaccine are reported. In most of these there was a relatively prompt decline in temperature and improvement in subjective symptoms. Metaphen was administered as early as the seventh day and as late as two months after the known onset of the disease. The number of injections of 10 cc. each of metaphen ranged from two to thirteen. We believe it is probably best to repeat the injection within twelve to twenty-four hours after the first injection, and then daily for the first week and after that biweekly, if continued therapy is necessary. All patients were treated intravenously. It was obvious that the earlier the patients received the metaphen therapy, the more rapid was the decline in the temperature and symptoms.

2. Metaphen therapy compares favorably with antiserum therapy, and is more prompt in alleviating symptoms and dropping the temperature to normal than most of the reported cases in which chemotherapy or vaccine therapy has been used.

125 West F Street.

INDUCED JAUNDICE FOR THE CONTROL OF CHRONIC INFECTIOUS ARTHRITIS*

By Bernard L. Wyatt, M.D.
Tucson, Arizona

IT has long been known that patients with chronic infectious arthritis and fibrositis have experienced more or less complete relief, for varying periods of time, following an attack of intercurrent jaundice. Such cases have been reported by ourselves and others. It has been clearly apparent that if nature's method could be duplicated a great forward step in the control of arthritis would be achieved.

Last June my associate, Doctor Thompson, and I presented to the members of the American Association for the Study and Control of Rheumatic Diseases, at Atlantic City, the first successful method for inducing a safe and nontoxic jaundice.

Our technique for the induction of jaundice was based upon a long period of study and experimental investigation. This paper, devoted to a detailed consideration of the purely scientific aspects of our research, will be off the press shortly.

OBSERVATIONS OF AUTHORS

Briefly, and confirming the findings of Race, we observed that serum bilirubin levels are lower in patients with chronic infectious arthritis than in normal individuals. Upon working with rabbits and administering repeated doses of bilirubin—dissolved in a sodium carbonate solution, to which was subsequently added the sodium salt of dehydrocholic acid—it was discovered that the production of jaundice resulted, and that the animals suffered no ill effects from daily injections of our compound.

After establishing the safety of our method in this manner, we felt justified in proposing the induction of jaundice to a selected group of patients who were not responding satisfactorily to conventional programs of treatment. After from one to eleven injections of our preparation, a reversal of their symptoms followed so suddenly and dramatically that the similarity between these results, and those noted in patients who had developed jaundice naturally, was most striking.

It was found that there was an analgesic serum bilirubin level, and that observable jaundice did not disappear until from two to three or more weeks following the final injection of our compound. . . .

Significance of our studies:

(*a*) While the mechanisms involved in the response of patients to induced jaundice are not the same as in the case of focal removals, the benefits, nevertheless, are comparable, and even superior to them in a considerable number of instances.

(*b*) The product and technique developed by us produce an artificial jaundice which apparently duplicates the effects reported by various observers when clinical jaundice has intervened in such patients.

(*c*) Since a return of the arthritic or fibrositic symptoms may follow a clinical jaundice, after varying periods of time, and in view of the fact that the duration of the benefits of artificial jaundice is seemingly subject to similar possibilities, it is desirable to prolong the effects as much as possible. This is especially important, since it is not possible to foretell how long our apparent duplication of nature's mechanisms will remain operative.

(*d*) The induction of artificial jaundice, therefore, should be followed up routinely by increased rest—both local and general—and the stimulation of the natural curative forces of the body by antigens and other means.

Wyatt Research Foundation.

† Since this paper was submitted for publication, we have treated three more patients with undulant fever, including one of us (K. H. A.). In all three the diagnosis was made within the first ten days of the onset of symptoms. The fever subsided within forty-eight hours after the administration of metaphen, 10 c.c. (1:1000) intravenously. In one of us (K. H. A.) night sweats returned twice, but these were promptly stopped by repeating the metaphen. The plan of treatment used in each case was as follows: Metaphen, 10 c.c. daily, for four days (in one case five days) then every other day for three doses and, finally, once a week for two weeks. If any symptoms returned, then metaphen was given on successive days for two or three days; this was done in the one patient only (K. H. A.).

* Presented with moving pictures at Los Angeles on July 23, 1937, to the Pasadena branch, Los Angeles County Medical Association.

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

RECTAL DISEASES—PARTICULARLY THE OFFICE TREATMENT OF HEMORRHOIDS

I. SYMPTOMS

MONTAGUE S. WOOLF, M.D. (384 Post Street, San Francisco).—Hemorrhoids are vascular swellings composed always of varicose venous channels and, occasionally, also of the arterioles which supply the areas with blood. The situation of these tumors is important for a comprehension of the symptoms produced by them.

The anal canal is about one and a half inches long, and extends upward from the junction of the skin and mucous membrane. In children and young adults this junction is well seen; but increasing years bring an irregularity to the part which obscures the change from skin to mucous membrane. Yet the margin of the skin can at any age be defined. Unlike the glistening mucous membrane, the skin has pigment, hairs, and sebaceous and suderiferous glands, making its texture coarse. The mucous membrane begins where these characteristic qualities end and extends upward for half the length of the anal canal, which would thus be three-quarters of an inch. For so long it is seen to be pink in color and smooth in texture. This part may be prolapsed outside the canal and yet be easily defined. The upper half of the canal might just as easily be considered part of the rectum. Embryologically, it is developed from the same source. This upper one-half of the anal canal is normally thrown into longitudinal columns, which produce a dentate line where it joins the lower half of the canal. The whole canal is grasped by the external sphincter muscle and, in the upper part, the internal sphincter and levator ani muscles with the external sphincter form the anorectal muscular ring, the preservation of which is so important for continence of the orifice. The mucous membrane of the upper part of the anal canal is lax and, as has been stated, folded longitudinally. It contains no nerves conducting sensations of pain. Therefore it may be injected through a needle without anesthesia and without causing pain. In this respect it resembles the mucous membrane of the whole gastro-intestinal tract. The lower half of the canal being lined by smooth squamous epithelium will, on being injected, produce the same painful stimuli as though skin were so treated.

Internal hemorrhoids will now be understood, since they occur in the upper part of the anal canal, to be in themselves unable, unless complicated, to produce pain, while external hemorrhoids originating at the mucocutaneous margin will be subject to pain if damaged, as in inflammation or thrombosis. For this reason, external hemorrhoids are not treated by injection.

We have, therefore, two areas in which varicose tumors may be formed. Those in the upper part of the anal canal are internal hemorrhoids which, owing to the laxity of the tissue and the size of the veins, form large, soft, compressible swellings. The underlying peri-anal veins at the anocutaneous margin form irregular excrescences or tags in this situation often more demonstrable at the anterior and posterior aspects of the orifice, where they are known as sentinel piles.

All of the foregoing is important to the elucidation of symptoms for which hemorrhoids are responsible. An individual is not conscious of the presence in the early stages of the internal or external hemorrhoids. The first sign of the former will be often bleeding at stool when pressure is exerted on the swollen varicosed areas, which may be ruptured and cause a distended vein to bleed. It is very characteristic of this bleeding that it occurs at stool when the mucosa is physiologically everted. Thus, the bleeding is from a freshly ruptured vessel, is bright red, and fairly or definitely profuse. The blood is not retained in the canal because, as soon as the act of defecation is over, the mucous membrane is retracted and compressed by the walls of the anal canal. The bursting pressure is relieved, the rent in the vein closed and the bleeding stops. It is most unusual to find blood in the rectum from internal hemorrhoids which have continued to bleed after reposition of the hemorrhoids, and this applies even to hemorrhoids which are large enough to prolapse at stool. Should the type of bleeding described be not the first sign of internal hemorrhoids, the presence of hemorrhoids may be first suspected by a feeling of fullness in the anal canal which is increased at stool. Later, the individual may be surprised to find blood passed at an evacuation, and this will become more frequent, possibly more profuse, until the hemorrhoids protrude at bowel movements. Then the symptom of bleeding is likely to be replaced by prolapse only, since the hemorrhoidal swellings are not compressed any more against the unyielding anal canal. In the early stages of prolapse the hemorrhoids can be replaced easily by firm pressure. Subsequently they have to be returned even between bowel movements, and, finally, they cannot be returned at all, having become incarcerated. This is just a stage before strangulation takes place. It is only when this final event occurs that internal hemorrhoids become painful. Thrombosis is most uncommon in internal hemorrhoids except on this painful development, when they are swollen, edematous and possibly ulcerated. The pain then is due to extension of the thrombotic process to the nerve fibers in the lower segment of the anal canal, and to the accompanying inflammation and

stretching of the canal itself. Unquestionably, the pulling on the rectal wall, even before it is exaggerated by the torment of actual persistent protrusion, conduces to a considerable feeling of depression on the part of the patient. He becomes nervous, irritable, and uncertain of what may next happen to the part affected. Also, a discharge of mucus from the hemorrhoids adds to his discomfort and disgust. He may develop some urinary irritation as well. If bleeding has been prolonged, continuous and severe, he may develop an anemia of considerable consequence. It is possible, from such a loss of blood, to see patients with percentages of hemoglobin from 10 to 20, as has been my experience, and a red count of under two millions.

External hemorrhoids are, as a rule, of no major importance. They occur at the anocutaneous margin and, as a consequence, are covered partly by squamous mucous membrane and partly by skin. They can always be seen and felt. They occur on account of increasing laxity of the usual radiating anal folds as age progresses. They overlie a circular peri-anal plexus of veins which distribute upward longitudinal branches. These join the internal hemorrhoidal plexus. The veins at the orifice may become varicose and congested, and even infected. They may rupture, causing extravasations of blood, forming the "thrombosed hemorrhoid." This condition is extremely painful. A lump is felt just at the orifice, which may rupture or form a small superficial abscess. The tense, blue, rounded swelling which appears suddenly on exertion, and is exquisitely tender, is easily diagnosed. It may occur even in sleep. When it becomes ulcerated, bleeding in small quantities results; if it goes on to abscess formation, which is quite rare, throbbing is added to the continuous pain of extravasation.

Since external hemorrhoids are due originally to varices, and by exudation from them of serum into the connective tissue, it follows that the characteristic excrescences form. These are enlarged further by irritation due to the usual detergent effect of cleansing; also, the erect posture plays its part by delaying the emptying of the dependent veins. When the folds attain a certain size, they prevent a proper hygiene of the part, and secretions of the perianal skin collect between the folds, which finally become macerated. Itching is a symptom many times due to the presence of external hemorrhoids, both on this account and because of waste tissue products remaining in the unchanged venous pool. If the patient endeavors to relieve himself by scratching, a chronic eczema may form which adds to his discomfort, even producing an exhaustion on account of sleeplessness due to the pruritus.

Internal and external hemorrhoids are very often combined anatomically and symptomatically. When the former become strangulated, the latter will become thrombosed and edematous at the same time. By such a process the greatest enlargement of the combined tumors takes place, swelling, pain, thrombosis, ulceration, and discharge, all being present to the last degree. Finally, in the presence of infection and on account of the portal drainage from this area, an abscess of the liver may result.

II. INJECTION TREATMENT

William H. Kiger, M.D. (1930 Wilshire Boulevard, Los Angeles). — In this symposium your editor has requested that I confine my remarks to diagnosis: To reach any intelligent conclusion one must first review a little of the anatomy.

Hemorrhoids are undoubtedly a very ancient malady, for, as far back as it is possible to trace the history of medicine at all, it is possible to find evidence of piles. Hemorrhoids are one of the penalties we pay for the erect position, and one of the chief reasons for this is the anatomy of the parts.

There are three main groups of veins which anastomose around the anal canal. The main plexus of veins lies immediately beneath the mucous membrane and the muscular coat of the bowel. The main artery of the rectum is the superior hemorrhoidal which runs down the desorectum, and divides at the upper level of the rectum into two branches. These run parallel with the wall of the bowel and anastomose lower down with the middle inferior hemorrhoidal arteries, and the latter comes down from the iliac arteries and supplies mainly the tissue outside of the bowel wall. Of the three main groups of veins, the most important is the one running with the superior hemorrhoidal artery. These veins run up the bowel and drain directly into the portal system. The inferior mesenteric vein is a branch of the portal system. The portal vein contains no valves. It is obvious that, while standing in the upright position, there is a column of blood, the length of which is equal to the distance between the skin of the anus and the liver, and as there are no valves there is a fair amount of pressure at the lower end of the column. The reason we suffer from piles is because of the blood in this branch of the plexus having to go into the portal system. Other reasons are: increased intra-abdominal pressure (such as overloading the bowel, which causes increased pressure in the veins); anything which causes congestion of the liver, or anything which causes a vein engorgement; chronic constipation, lifting, straining at stool, pregnancy, pelvic tumors, sedentary habits, etc. Hemorrhoids may be divided into two classes—external and internal. There is no particular age for hemorrhoids, but they are most frequently seen in middle life; they are rare in children. There are two varieties of external piles; one variety consists of tags, or ridges of redundant skin around the margin of the anus, which are of little real importance, although they are always described as piles by patients, and sometimes by physicians. They consist of little less than loose folds of skin with perhaps a little cellular tissue, and, as a rule, cause little inconvenience unless the skin becomes irritated and causes itching. This condition is what the laity call itching piles. The other more common form of external piles is the thrombotic, or venous external pile. This is caused by some kind of traumatism, a sudden strain, either at stool or during any form of exercising, coughing, sneezing, or anything which will make an increase in the intra-abdominal pressure. These

generally develop quite suddenly, and consist of a circular ovoid swelling at the anal margin, varying in size from a small seed to a large cherry. In color they are dark blue, the skin is smooth and shiny. The origin is the rupture of a small vessel and the extravasation of blood into the cellular tissue, causing a hematoma at the anal margin. These swellings most frequently occur at the anal margin, but occasionally are just inside the anus, where they are pinched by the sphincter muscle, and in that position they cause a great deal of pain, due to spasm of the sphincter. Internal hemorrhoids are vascular tumors situated in the lower portion of the rectum. They vary considerably as to size and appearance. There is no special age at which they occur, though they are unusual in children. They occur generally after twenty, when people lead their most active life, and are about equal in males and females. Women are particularly liable to suffer from piles at certain times, especially during pregnancy, and immediately afterward. Occupation has an important bearing on their development, also sedentary habits, overeating, and alcohol; while straining at stool (due to constipation) is probably the most common cause.

* * *

III. TREATMENT

Emerson F. Hoover, M.D. (1434 Sixth Avenue, San Diego).—In order to properly treat rectal and anal pathology, it is first necessary that the physician be able to obtain a clear, natural and unobstructed view of the parts in question. I have found that what best meets these requirements is a tubular speculum, thirteen-sixteenths of an inch in diameter, and one and one-half inches in length, attached to a shoulder with a handle containing a lamp which can be raised to view the field, or lowered to permit the introduction of a syringe.

Since 95 per cent of anal pathology is located within one inch of the mucocutaneous or anorectal line, the above-mentioned speculum "specially manufactured by the Cameron Surgical Specialty Company" of Chicago, not only gives a clear natural view, but permits the unobstructed use of instruments through it.

In treating internal hemorrhoids by the injection method, the patient is placed in the left lateral position with the knees strongly flexed toward the abdomen. The anoscope is then fully introduced, then slowly partially withdrawn, permitting one to study the entire pile-bearing area. To use the injection method of treating the internal hemorrhoids, first apply a 2 per cent solution of neutral acriflavine, then using a 2 cubic centimeter Vim syringe containing a 1 per cent solution of novocain, with a 27-gauge needle attached, injecting about 4 minims of this solution into each of the two or three hemorrhoids, which have been selected for treatment at this time. Another similar syringe, containing a 5 per cent solution of quinin and urea, is used, and about one-half to one cubic centimeter is injected into the submucosa at the highest point of the redundancy. The solution should flow freely, and if it does not it is either too superficial or too deep. The needle is allowed to remain one-half minute or more to allow the swelling or edema to occlude the needle puncture.

An interval of from about ten days to two weeks is required to obtain the maximum sclerosing effect. About four injections into each hemorrhoid is necessary to bring about a complete reduction in size.

In order to cure some internal hemorrhoids, a 10 per cent solution of quinin and urea is required. Some physicians find that a 70 per cent solution of alcohol is very effective in the treatment of internal hemorrhoids, using 1 to 2 cubic centimeters per hemorrhoid, while others use a 20 per cent solution of phenol in glycerin, and inject 3 to 5 minims into each hemorrhoid.

No attempt should be made to sclerose external hemorrhoids or skin tags. They should be infiltrated with a novocain solution and excised, and may or may not be sutured.

Anal Fissure.—For the treatment of anal *fissure,* apply a 5 per cent solution of cocain to the fissure, followed by an antiseptic; then insert a fine hypodermic needle one-eighth inch below and parallel to the fissure bed, and thrust it across while slowly injecting a 2 per cent novocain solution. Then change and attach a syringe containing a 5 per cent solution of quinin and urea hydrochlorid. Inject about one cubic centimeter of this solution while slowly withdrawing the needle. This will generally stop all spasm and pain, and will result in the prompt healing of the fissure.

Pruritus Ani.—For the treatment of pruritus ani, I have found that drugs are seldom needed if there is a careful postdefecation cleansing of the anus by a forceful jet of water, directed from the open end of a rubber tube attached to a faucet and held a few inches from the anus and allowed to forcefully cleanse the parts, after which the parts can be carefully dried by blotting with cleansing tissue. Bismuth subgallate may then be dusted on if further help is needed.

Etiology on Appendicitis. — Connell believes that distinction between appendicitis alone, and perforation and peritonitis, is important. Appendicitis is considered as a result of the sequence of obstruction, distention, circulatory stasis and infection. Obstruction may be due to a foreign body (mucous plug, edema or neoplasm), stricture (stasis, angulation, and deformity), and functional derangement (spasm). The effect of the first two factors in obstruction is quite obvious, but that of the last calls for elucidation. The striking difference in the ileocecal region from all other gastro-intestinal situations is that the parasympathetic distribution is double, which permits the possibility of overinnervation or underinnervation. Sympathetic-parasympathetic imbalance is a possible cause of hypertonicity or hypotonicity at the ceco-appendical juncture. The existence of a true sphincter (Gerlach's valve) at this point has been denied, but circular muscle and extrinsic and intrinsic nerve supply, the necessary ingredients, are present. It would seem entirely justifiable to assume that disturbance in autonomic nervous balance might cause spasm or hypertonicity of the neuromusculature at the appendicocecal juncture, which might help to answer the original question as to the why of the obstruction that caused a certain proportion of cases of appendicitis. It would seem probable that overparasympathetic or underparasympathetic innervation of the ileocecal region is due to variations in embryologic development.—*American Journal of Surgery.*

CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section on pages 2, 4 and 6.

CALIFORNIA MEDICAL ASSOCIATION

HOWARD MORROW.....President
WILLIAM W. ROBLEE.....President-Elect
LOWELL S. GOIN.....Speaker
MORTON R. GIBBONS.....Council Chairman
FREDERICK C. WARNSHUIS.....Secretary-Treasurer

THIS MONTH'S TOPICS*

ASSOCIATION ACTIVITIES

1. *Season's Greetings.*
2. *County Officers.*
3. *Self-Medication.*
4. *Hotel Reservations—Pasadena.*
5. *Passing Comments.*
6. *The Barbiturates.*
7. *Association Nights.*
8. *Liability Insurance Policies.*
9. *Cancer Commission Pathology Conference.*
10. *A Letter from American Medical Association President-Elect Irvin Abell.*

DEPARTMENT OF PUBLIC RELATIONS

1. *Public Education.*

ASSOCIATION ACTIVITIES

SEASON'S GREETINGS

"Happy is he who at the end of a year has something beautiful to remember from his yesterdays and something good to hope for from his tomorrows; who has a friend he wants to copy, and a friend who wants to copy him; who has courage to attempt great things all by himself and the wisdom to ask help; who gives thanks with a whole heart for present blessings, and is already at work with plans for the New Year."

That every member, reader, and advertiser enter in upon the coming holiday season in that spirit, is the friendly greeting extended by the Officers and Councilors. For all the earnest wish is for a truly Merry Christmas and a New Year of happiness, prosperity, and contentment.

COUNTY OFFICERS

Many, if not most of our county units, have held their annual meeting and elected officers for the coming year. To these new officers and also to the members, the following suggestions are tendered.

Election to office is not an idle or passing honor. It must not be assumed that all that such election entails consists of the privilege to be addressed as "Mr. President" or "Mr. Secretary." Acceptance of office implies that you are willing to assume and discharge all of the duties that attend your office. That you are willing to contribute of your time, efforts and continuous thought in order that your county society may attain all of its purposes and enhance the value of membership. If you are unwilling to so officiate, it might have been better had you not accepted the office.

Officers of county medical societies are not and cannot be mere figureheads if medical organizations are to accomplish desirable results. They are the directors, leaders, and spokesmen of the medical profession in their respective counties. They must think and live for their society day and night. It is theirs to plan, to inaugurate, to direct organizational work. They must inspire and enlist the coöperative support of all the members and supervise the work of all committees. They must increase and intensify their interest in the affairs of their community and cause the county society to assume a leading rôle in building sound public and private health opinions and to maintain public good will and support.

When officers and members conform to and reflect these responsibilities of office, then their county medical society will be a going organization.

*All articles listed under the caption, "This Month's Topics," have been written and sent to the Editor by the Association Secretary, Dr. Frederick C. Warnshuis.

SELF-MEDICATION

We congratulate the editor of the Visalia *Morning Delta* and commend highly his recent editorial that is here republished. This editorial writer has transmitted to his readers most sound advice and timely warning. Would that all other editors followed this precept, but we are somewhat afraid that the income from nostrum manufacturers' advertising will suppress their editorials.

ASKING FOR TROUBLE IN QUEST OF HEALTH

Announcement by the American Medical Association that over thirty deaths have been caused by the use of a new remedy, despite previous warnings against the dangers of the drug, directs attention again to the credulity of the American public in matters of medicine.

In the face of clear pronouncements that the full properties of the preparation were as yet unknown, patients readily subscribed to its use—with tragic results.

A companion case is that of a reducing compound which produces artificial fever, and which added another life to its toll on the same day the other fatalities were disclosed. Since the original announcement of the Medical Association, thirty-six deaths are now chalked up against the alleged elixir.

Unexplicable is the tendency of Americans to try out new medicines, with their own bodies as test tubes, disregarding tested scientific knowledge. Many of these preparations are produced under semi-secret formulas, compounded with pseudoscientific ingredients, manufactured not for improvement of health, but for sale alone.

Equally inexplicable is the refusal of the purchasing public to accept the factual findings of acknowledged experts, such as the corps of analysts employed by the American Medical Association, solely for the enlightenment and protection of the public.

Before any drug or medicinal preparation is accepted by the Association it is subjected to most exhaustive tests and analyses. Only after all tests are complete and results correlated, is the drug accepted and given to members of the Association for use. All preparations found unfit are so branded, and physicians are warned against their use.

The human race should be old enough to realize that there is no mystical fountain of youth, and that equally remote is the possibility of finding physical panaceas for all ills. But with the same abandonment of common sense that keeps get-rich-quick promoters in wealth, man follows a will-o'-the-wisp in his search for health, willing to accept almost fantastic medicants before he will turn to the advice of a qualified physician, or seek within his own soul for the solution of his problem of healthful living.

If science were to ask any man to submit his precious body to medical experiment that might endanger his life, he would scorn the idea as ridiculous. But without thought of future, without slightest concern for consequences, thousands and millions of invalids blandly accept the ballyhoo of high-pressure quacks in the face of sound, accepted medical knowledge.

HOTEL RESERVATIONS—PASADENA

Members are once more reminded that it is advisable to write to the manager of the Huntington Hotel in Pasadena for room reservations for the 1938 annual session the week of May 8. Hotel assignments have been placed in the

hands of the manager of the Huntington Hotel, to whom all requests for reservations should be sent.

The Committee on Scientific Work together with section officers have just about completed the details for a very attractive scientific program, with several outstanding features. Four distinguished out-of-state guest speakers have accepted invitations to participate in the program, and will join in presenting a timely symposium. It is going to be a worth while annual session.

So write for your hotel reservations today.

PASSING COMMENTS

Guard your surplus funds and do not invest them in securities that some calling salesman describes in a glowing sales talk. Before purchase, consult with a reputable investment banker. This warning is repeated because of reports of unfortunate losses some members sustained during recent months.

* * *

These are some additional comments on the October 3 Secretaries' Conference that were received too late for publication in the last issue.

"I feel that the Conference held in San Francisco recently has been of great value to both secretaries and committee members. The annual meetings of the Association leave too long a time between vital discussions of important problems, so that semi-annual meetings, such as are held, keep the interest up and enable everyone to get the viewpoint of confrères from other portions of the State."

* * *

"It certainly was a pleasure to attend the conference of county secretaries and committee members. I think we all picked up many points of interest and instruction that will prove of lasting benefit."

* * *

"The idea of bringing together the officers of each county medical association and members of outstanding committees to meet with the officers of the State Association is, in my opinion, a very advisable thing to do, as it doubtless will give to the officers of the various committees a much better conception of the actions of the Association. After all, the State Medical Association cannot function at its best without the coöperation of the county units."

* * *

"It seems to me that the plan and details of the meeting as carried out left little which could be improved. It was all constructive and worth while. The representative of any society could find everything of interest and worth taking back home. The address of President-Elect Abell was most interesting, and if the purposes he expressed could be carried out the American public would profit. The reports of the various standing committees were all ably presented. Doctor Roblee is always interesting, and the work of each committee was so ably reported that each society would greatly benefit if they could be able to hear each separate one of them."

* * *

"In reply to yours of the 6th regarding the annual conference of county secretaries and committee members, I wish to state that I found the meeting very interesting as well as profitable, in that it answered many questions that have come up during the year here in our local society. I was especially interested in Doctor Ruddock's talk on postgraduate opportunities, and Doctor Crosby's discussion of hospitals, dispensaries, and clinics."

* * *

"Even though this is too late for comments to be published, I take pleasure in making a brief statement to you concerning such meetings. The recent one afforded me the first opportunity I have had to attend such a conference. In my estimation, it is well worth while because it brings together men from various parts of the State in such a way that their acquaintance with one another is extended in a valuable way, so far as organized medicine is concerned. It is stimulating to not only know people from other sections of the State, but to be able to exchange ideas with them first hand. I am heartily in favor of continuing such meetings."

* * *

"My reaction to the third annual conference of county secretaries and committee members was that it furnished an enjoyable and somewhat stimulating day, but I could not help asking myself at the end of the session just what had been accomplished. Certainly, the talk by Doctor Abell was very much worth while. Otherwise the benefits of the meeting would have to be considered as due to whatever stimulation the various attendants may have received to do more active and enthusiastic work."

* * *

The Wisconsin Medical Society at its recent annual session levied a $10 per member assessment in addition to the fixed annual dues of $15. It requires funds to conserve the individual interests of members and to educate the public.

* * *

The Council will meet in Los Angeles in January. The Committee on Scientific work and the chairmen and secretaries of scientific sections will meet in Santa Barbara on January 15. At that time the final plans for the annual session in Pasadena will be determined.

* * *

The federacy of the American Medical Association, with its state and county units, will determine the future of medical care and practice in this country. When new methods and new plans of service are indicated, this federacy will develop and apply them upon a sound basis. There is no excuse or need for this self-constituted "Committee of Physicians." If this group feels that it has a cause, a solution, or a proposal, the channels and the organization exists where these projects may be presented and official action recorded after due deliberation. Independent action by this Committee of Physicians will only create confusion, disrupt unity of action, becloud the issue and result in failure. If this committee has wise-minded members, the wisest action it can take is to disband and unite with the constituted federacy that by purpose, action and past records is alone competent and authorized to speak for the medical men of this nation.

* * *

Merry Christmas and a Happy New Year!

THE BARBITURATES

Since Emil Fischer and Von Mering introduced diethyl barbituric acid as "veronal" in 1903, and failed to cover by patent the various possible chemical modifications of this compound, the medical profession has been flooded with dozens of barbital derivatives, few of which have been shown to have any advantage over the now official barbital. A characteristic feature of all these agents is the slowness with which they are detoxified or removed from the body. The result is that they tend to cumulate on repeated administration with serious untoward effects.

These general statements are true for all barbiturates. However, the promptness of recovery from the central nervous system effects of certain newly introduced ones, such as pentobarbital ("Nembutal") and "Evipal," have led to the claim that they are promptly detoxified in the body. The persistence of other effects indicates the slowness with which they all are detoxified.

Dr. P. J. Hanzlik, Professor of Pharmacology at Stanford University Medical School, San Francisco, has prepared a thorough survey of the untoward side actions of the barbiturates (*California and Western Medicine*, 46:302-306, May, 1937). This report excited editorial comment in the *Journal of the American Medical Association*.

A good rule in using the barbiturates is not to repeat administration. If relatively prolonged action is desired, then barbital or phenobarbital are probably as satisfactory as any. If prompt recovery from central depression is desired then pentobarbital seems to be satisfactory. If it is necessary to use a hypnotic agent over a period of time, then it is wise for the physician to alternate such various chemical types as chloral hydrate, paraldehyd, sodium bromid, and one of the barbiturates.

ASSOCIATION NIGHTS

Recently, President Morrow, Councilor O. D. Hamlin, and the State Secretary attended the annual meeting and dinner of the Contra Costa County Medical Society in

Richmond. There was a goodly attendance of the members of this active county unit. President Morrow gave a lantern-slide clinic on syphilis and answered many questions. Councilor Hamlin and the State Secretary discussed organizational activities and the features of the Association's expanding program.

LIABILITY INSURANCE POLICIES

Members are warned to exercise caution when securing malpractice insurance liability policies. Be sure that there are no exemptions and that you have full coverage against all claims that may be made against you.

This warning is timely, for within a week three policies were reviewed that had just been obtained and which the holders believed gave them full coverage. In all of them liability was denied in claims arising from the use of x-rays and radium, the acts of assistants and technicians and for services rendered in a hospital or clinic.

A goodly number of policies are being sold that are nigh valueless. Read your policy before paying the premium and be sure you have adequate coverage. If in doubt send in your policy to the central office and you will be advised.

Policies may be obtained that will fully protect you in claims for professional services rendered, or which should have been rendered by you, your partner, assistant, technician, nurse or any other person, and claims or suits based on malpractice, error, negligence, mistake, breach of contract, loss of service, property damage, autopsies, inquests, personal restraint, dispensing of drugs or medicines, assault, slander, libel, undue familiarity, anesthesia hallucination, malicious prosecution, or replevin of property.

Such a policy gives you full coverage at reasonable rates that are less than those for lesser protective policies. Read your policies and maintain complete protection.

CANCER COMMISSION PATHOLOGY CONFERENCE SUNDAY, DECEMBER 19, 1937

Stanford University Medical School, Sacramento and Webster Streets, San Francisco

The midwinter Conference on Pathology, held under the auspices of the Cancer Commission of the California Medical Association, will be held on December 19, in Room 406, Stanford University Medical School, Sacramento and Webster streets, San Francisco.

The program will consist of a morning and afternoon session, starting at 9 a. m. Interesting cases are to be presented.

Those desiring to make case reports should send the case history, together with sixty slides, as soon as possible to the chairman of the committee, Dr. D. A. Wood, Stanford Medical School, Sacramento and Webster streets, San Francisco. These can then be mailed to the participants for study before the meeting and should be brought to the meeting. Those who wish to participate in the meeting are requested to register with the chairman as soon as possible. Bring your own microscope.

The committee arranging the meeting consists of Dr. D. A. Wood (chairman), Drs. Paul Michael, Zera Bolin, Jesse Carr and James McNaught.

A LETTER FROM AMERICAN MEDICAL ASSOCIATION PRESIDENT-ELECT IRVIN ABELL

Louisville, Kentucky,
October 14, 1937.

Dr. F. C. Warnshuis
Four Fifty Sutter
San Francisco, Calif.

Dear Doctor Warnshuis:—Many thanks for your kind letter of October 4, and please be assured of the pleasure it gave me to meet the members of the California Medical Association and to observe the sincerity and earnestness with which they approach their problems. Their cordiality and courtesy to me have left a most happy remembrance of my visit and inspires me to want to come back. I will be glad to bear in mind your kind invitation for the 1939 session, and hope that circumstances will permit of my acceptance.

With all good wishes, and looking forward to the pleasure of seeing you next month, I am,

Sincerely yours,
IRVIN ABELL.

C. M. A. DEPARTMENT OF PUBLIC RELATIONS†

Public Education

To inform, enlighten, and educate the public in matters relating to health, preventive medicine and proper medical care has been a major activity of medical organizations and allied lay societies or associations. These efforts have been many and varied. Public meetings, lecture courses, the public press, literature, exhibits, expositions, the radio, and campaigns and drives, have been employed intensely and systematically. Progress has been made, but not until recently has there been much thought given as to how effective these methods and programs have been or whether the results justified the efforts, energy, and the funds expended.

Recently some paused to think, reviewed results and survey methods. How effective have been the agencies employed? How well has the information that was imparted been assimilated and applied? What medium or method produced the best results and accomplished the greatest good? Through what means was the message best understood? These questions are of interest and the concern of all who seek to disseminate dependable information that will be retained and applied. Without application and use, education is meaningless and a waste of effort and money.

Recently a survey, study, and an evaluation have been conducted under careful, observient control and end tests. A detailed report is soon to be made. The evaluation reached may be summarized by listing the following in their comparative end-results and value:

(*a*) Moving pictures, 90 per cent.
(*b*) Pamphlets and literature, 5 per cent.
(*c*) Lectures by trained speakers and teachers, 4 per cent.
(*d*) Expositions, fairs, exhibits, 1 per cent.

These results give reasons for pause and thought on the part of all persons, organizations and agencies engaged in movements designed to inform and educate the public. Consideration should be given as to whether present programs and plans should be adjusted and revamped in order that useless methods be discarded and productive ways be substituted.

COMPONENT COUNTY MEDICAL SOCIETIES

HUMBOLDT COUNTY

The Humboldt County Medical Society met on October 7 at 8:15 p. m. at the St. Joseph's Hospital, President Allan R. Watson presiding. There were twenty members present. Dr. W. H. Sargent of Oakland was the guest speaker.

Dr. J. M. Goodman was elected to membership. Due to the reduction in the State dues, our local society reduced its dues to $5 for the coming year.

Doctor Wing reported on the business carried on at the Secretaries' Conference held in San Francisco on October 2.

Doctor Sargent gave a very interesting talk on *Superficial Malignancies as Treated by Radiology.*

After a luncheon served by the Sisters, the meeting adjourned.

LAWRENCE A. WING, *Secretary.*

KERN COUNTY

The Kern County Medical Society met in regular session at the El Tejon Hotel in Bakersfield on Thursday evening, October 21. Dr. H. W. Jones, Vice-President, called the meeting to order.

† The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. Charles A. Dukes of Oakland is the chairman, and Dr. F. C. Warnshuis is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. F. C. Warnshuis, Room 2004, Four Fifty Sutter Street, San Francisco.

Dr. Jay Crane and Dr. Bernard Silver of Los Angeles were the guests and speakers of the evening.

Dr. Louis A. Packard proposed a resolution, which was adopted by the Society, as follows:

WHEREAS, It has been the habit in the past for the Doctors of Medicine attached to the CCC camps in Kern County to practice medicine freely in competition with private practitioners; and

WHEREAS, Private physicians have been called upon to do work for the CCC in the area and have never been able to collect a fee; now, therefore, be it

Resolved, That the Kern County Medical Society ask the proper authorities of the CCC to see that the medical officers of the CCC do not exceed their privileges, and that private physicians be paid for doing the work they are called upon to do; and be it further

Resolved, That a copy of this resolution be forwarded to the CCC authorities.

It was decided that officers of the California Medical Association and members of the component counties in the Third District be given early invitations to the annual banquet to be held in December. A committee, composed of Doctors Packard, Fox and Strongin, was appointed to make arrangements. Dr. William Moore was notified of his election to fill the unexpired term of the late Dr. N. N. Brown on the Board of Directors.

Doctor Crane presented a very interesting talk on *Nephroptosis as a Cause of Recurrent Attacks of Pyelitis and Pyelonephritis* and discussed the operation of nephropexy. The importance of good pyelography was well demonstrated by the large series of x-ray slides he used in illustration.

Doctor Silver reported on a *Series of Two Hundred Cases of Gonorrhea in the Male Treated with Sulfanilamide in the Los Angeles Venereal Disease Clinic.* Strict criteria were used for cure, and his data was very favorable for the efficacy of the drug in both acute and chronic gonorrhea. He stressed the possible toxic reactions and warned against indiscriminate use of the drug.

This timely subject provoked much discussion among the members, following which the meeting was adjourned.

C. S. COMPTON, *Secretary.*

❦

PLACER COUNTY

The Placer County Medical Society had its annual meeting in Auburn Saturday evening, November 13, 1937. There were present the following members and visitor:

Members: President Lewis and Doctors Mackay, Hirsch, Kindopp, Padgett, Lundegaard, Atkinson, Peers, Miller, Russell and L. B. Barnes.

Visitor: Dr. Lionel A. B. Street, a member of the Los Angeles County Medical Society.

This being the annual meeting, the secretary-treasurer read the secretary's annual report and the treasurer's annual report, both of which were approved.

The following officers and delegates were elected for the ensuing year: President, Dr. C. Ettrick Lewis of Auburn; vice-president, Dr. William M. Miller of Auburn; secretary-treasurer, Dr. Robert A. Peers of Colfax; delegate to state meeting, Dr. L. W. Empey of Roseville; alternate, Dr. Mildred E. Thoren of Weimar.

The application of Dr. Christian B. Pedersen of Tahoe for membership was unanimously approved and Doctor Pedersen was elected a member of the Placer County Medical Society.

The application of Dr. S. Fritz Tobias of Grass Valley was read, but action was postponed until the doctor had been practicing in the county the necessary six months.

On motion by Dr. R. C. Atkinson, seconded by Dr. Vernon W. Padgett, a committee consisting of Doctors Mackay, L. B. Barnes, Atkinson, Hirsch and Padgett was appointed by the president to serve as a Committee on Fee Schedule.

There were case reports by Doctors Padgett, Lewis, Kindopp and Barnes. Dr. Lionel A. B. Street, a member of the Los Angeles County Medical Society, gave a very interesting talk on "Medical Practice in Siam, China, Japan, Manila and other parts of the Orient."

The Society adjourned for refreshments.

ROBERT A. PEERS, *Secretary.*

SACRAMENTO COUNTY

The regular meeting of the Sacramento Society for Medical Improvement was called to order by the president, Dr. Raymond Wallerius, on September 21, at the Auditorium on Twenty-ninth and L streets. There were sixty-two members and guests present.

Doctor Reardan gave a report on a case of *Milroy's Disease or Congenital Hereditary Edema of the Legs.*

The paper of the evening was presented by Chauncey D. Leake, Ph.D., of the University of California Medical School. Doctor Leake gave a very interesting as well as instructive talk on *New Drugs,* and began his discussion by taking up the history of pharmacology and the different methods of assay used to determine potency and use. The vitamins and hormones were discussed in some detail. Doctor Leake closed his speech by discussing sulfanilamide, and warned of the danger of methemoglobin formation, liver destruction, and possible kidney damage. Discussion was opened by Doctor Beach and continued by Doctors Gundrum, Reardan, Scatena, Hall, and Babcock. In response to Doctor Reardan's question concerning the value of entoral for colds, Doctor Leake stated that he knew of no value in their use. Commenting on drisdol, in response to a question by Doctor Babcock, Doctor Leake warned of the possible presence of a toxisterol in this drug.

Dr. O. F. Johnson made a motion that the Program Committee be instructed to arrange a symposium for the October meeting by having those members of the Society talk on their recent experiences while visiting other medical centers or doing postgraduate work. The motion was carried.

G. E. MILLAR, *Secretary.*

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SAN BERNARDINO COUNTY

The regular meeting of the San Bernardino County Medical Society was held at the San Bernardino County Charity Hospital on Tuesday, November 2. About sixty-five members and guests were present.

The applications for membership of Dr. Robert Norman Williams of Ontario and Dr. Samuel Zelman of Redlands were favorably voted on, as was Dr. R. M. Taylor's transfer from the Orange County Medical Society.

Dr. F. E. Clough reported on the progress of the Committee on Postgraduate Conferences.

The program of the evening was then given:

Highlights in Diagnosis and Treatment of Skin Diseases in California by Dr. H. C. L. Lindsay of Pasadena. Lantern slides and motion pictures in color were used to illustrate discussion. Doctor Lindsay's paper was discussed by Dr. Ross Martin of San Bernardino and Dr. Erving L. Rogers of Loma Linda.

Report on Recent Legislation by Mr. Ben Read, Executive Secretary of the Public Health League of California. Mr. Read also introduced Dr. Carl Rusche, President of the Southern District of the Public Health League, and Dr. William Daniels, past president of the organization.

The meeting adjourned at 10:20 p. m., following which refreshments were served.

ARTHUR E. VARDEN, *Secretary.*

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SAN JOAQUIN COUNTY

The regular meeting of the San Joaquin County Medical Society was held in the Medico-Dental clubrooms at Stockton on November 4. The meeting was called to order by Dr. G. H. Rohrbacher. The petition of Doctor Fry for membership in the San Joaquin County Medical Society being approved, and there being no objections from the floor, Doctor Fry was declared a member.

Dr. Dewey Powell reported on the completion of the work of the special committee which had been working with the Pacific Telephone and Telegraph Company for correct listings in their new telephone book. This matter has been arranged to the satisfaction of our society.

Form O. H. 2 10 M. 9-37 of the San Joaquin County Local Health District, which offers free dental treatment as well as examination to school children, was read at the request of President H. E. Clegg of the San Joaquin County Dental Society. There was considerable discussion from the floor. It was moved by Dr. Dewey Powell, seconded by Dr. R. T. McGurk, that the Secretary be ap-

pointed to work with the secretary of the Dental Society to confer with Doctor Sippy as to the proper wording of these cards. The motion carried.

The next order of business was the nomination of officers. The following members were nominated:

For president: A. C. Boehmer of Lodi.

For first vice-president: N. P. Barbour and N. P. Johnson.

For second vice-president: F. A. McGuire, T. W. Kyddson, and P. H. McHugh.

For secretary-treasurer: G. H. Rohrbacher.

It was moved by Dr. Dewey Powell, seconded from the floor, that nominations be closed and the secretary be instructed to cast the ballot for Doctors Boehmer and Rohrbacher. The motion carried.

For directors: C. H. Sanderson, H. S. Chapman, C. V. Thompson, C. A. Broaddus, Samuel Hanson, J. F. Blinn, Dewey Powell, P. B. Gallegos, and J. F. Doughty.

For delegates: Dewey Powell, G. H. Sanderson, J. F. Doughty, and R. T. McGurk.

For alternates: C. A. Broaddus, C. V. Thompson, G. H. Rohrbacher, and N. P. Johnson.

The scientific paper of the evening was given by Dr. H. C. L. Lindsay of Pasadena. Doctor Lindsay presented patients in a clinic in the Medico-Dental clubrooms from 5 to 6 p. m. before a large group of members. The regular paper of the evening was the *Use of Natural Colored Motion Pictures and the Teaching of Advanced Dermatology,* Besides this, Doctor Lindsay showed slides and gave a very comprehensive speech on his experiences and on dermatological conditions, which was well received.

There being no further business to come before the Society, the meeting was adjourned by Doctor Blinn at 10:30 p. m. Refreshments were served.

G. H. Rohrbacher, *Secretary.*

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TULARE COUNTY

A regular meeting of the Tulare County Medical Society was held at Motley's Café in Visalia on Sunday, October 17.

Austin Miller called the meeting to order and introduced the guest speaker, Dr. William L. Rogers of San Francisco. Doctor Rogers demonstrated several thoracoplasty procedures at the Springville Sanitarium during the morning, and presented a paper on *Chest Surgery* at the evening meeting. He discussed the surgical treatment in pulmonary tuberculosis, empyemas, and traumatic wounds of the chest. Lantern slides were utilized to illustrate the talk.

The two applications for membership from Dr. Thorwald Johnson of Porterville and Dr. William T. Burton of Tulare were reported on by the Secretary and they were unanimously elected to membership.

Doctor Zumwalt reported that the Public Health Office had available antiluetic medication for needy private patients.

* * *

The Tulare County Medical Society held its regular meeting at Motley's Café on Sunday evening, November 7, Dr. R. C. Hill, presiding.

Doctor Winn, Medical Director of the Springville Sanitarium, read the following resolution:

Whereas, For the past two years the Tulare County Tuberculosis Association, with the coöperation of the medical and nursing staff of the Kings-Tulare Tubercular Hospital and the school nurses, have endeavored to carry out the recommendations of the State Tuberculosis Association in regard to the systematic skin-testing of all Freshman high school pupils in this county for the purpose of giving a complete examination to all positive reactors to the intradermal tuberculin test; and

Whereas, It is our desire that such testing be completed during the ensuing school year; now, therefore, be it

Resolved, That this matter be presented to the Tulare County Medical Society at an early meeting by the Medical Director of the Tubercular Hospital and the coöperation of as many members of that society as will volunteer their services for one or more days, be solicited in giving this test in the schools which have requested it, it being understood that all necessary expenses for such examinations and testing are to be paid by this Association; and be it further

Resolved, That the members of the Tulare County Medical Society be requested to utilize the tuberculin skin test with all children of suitable age who are known contacts with cases of open tuberculosis; and that this Association will furnish on request through Miss Jane Barker, the Tuberculosis Association nurse at the County Health Center, both the tuberculin syringe and tuberculin, without cost to any registered physician of this county, during the ensuing year, provided the physician will file a report with Miss Jane Barker, of all positive reactors.

Dr. Allan Palmer, Research Instructor at the University of California Medical School, was guest speaker for the evening. He read a very able paper on the *Female Sex Hormones* and discussed the practical indications for their use.

Following the educational program, Dr. E. C. Dickson and Dr. C. E. Smith of Stanford Medical School outlined a proposed plan of study of so-called *Valley Fever.* A combined laboratory and field investigation, under a grant from the Rosenberg Foundation, is contemplated. Historical review of the Fungus coccidioides was presented with lantern illustrations.

The Society voted unanimous coöperation in this undertaking.

A communication from the Rocky Hill Farms, Exeter, notifies of the discontinuance of certified milk production, effective November 1.

The meeting adjourned at 11:15 p. m.

Karl F. Weiss, *Secretary.*

❦

VENTURA COUNTY

The monthly meeting of the Ventura County Medical Society was held at the Saticoy Country Club on Tuesday evening, September 21.

At the conclusion of the dinner, President Hendricks introduced Doctor Packard of Bakersfield, newly elected councilor from this district, who spoke briefly on *The Problems Confronting the California Medical Association.*

Doctor Hendricks introduced Dr. Charles R. Wylie, the newly appointed health officer for Ventura County, who outlined the *Aims of the County Health Department,* and how they would be correlated with the work of the general practitioners. Doctor Wylie stressed the fact that the health department wishes to coöperate with the medical profession. He also recommended that a committee on public health be appointed, with whom he could consult between meetings.

This talk was followed by a discussion on vaccination and tuberculin tests for school children.

Dr. Sterling Clark was appointed program chairman for the October meeting.

* * *

The regular monthly meeting of the Ventura County Medical Society was held at the Saticoy Country Club on Tuesday evening, October 12.

After dinner Doctor Hyland presented a very interesting paper on the *Value of Convalescent Serum in the Various Contagious Diseases.* This was followed by a good discussion, in which most of the members participated.

Following the reading of the minutes a brief report of the Secretaries' Conference in San Francisco was given by the Secretary. A. A. Morrison, *Secretary.*

CHANGES IN MEMBERSHIP

New Members (47)

Contra Costa County

Howard B. Flanders

Humboldt County

Max John Goodman

Los Angeles County

Richard A. Carter
R. Fernandez
Y. F. Fujikawa
H. Harvey Greene
Rutherford T. Johnstone
Donald R. Laing
Edgar F. Mauer
M. W. McDougall
Ned D. Miller
Jesse C. Richards
David Rosenbloom
Harold D. Smith
Richard L. Smith
E. J. Sorenson
G. Arnold Stevens
Vincent E. Wagner

Napa County

Harry L. Bramwell

Orange County

Elizabeth L. Conforth
Mark A. Dalton
Henry Russell Hall
Charles E. Irvin
Harvey C. Maxwell
Charles E. Westerhout

Sacramento County

Walter M. Campbell
Samuel G. Christian
Roscoe L. Clark
James H. Yant

San Diego County

Richard T. Hamer
Berenice I. Stone
Anton S. Yuskis

San Francisco County

John Alden
Jerome W. Bettman
John F. Card
Bernard A. Cody
Benjamin L. Freedlander
Frank L. A. Gerbode
Allen T. Hinman
George Bernard Robson
John Francis Skelly
Jacob O. Smith
Elliott B. Tobias
Malcolm M. Wall
George O. Whitecotton

Santa Clara County

Louis H. Chaiken

Tulare County

William T. Burton

Transferred (3)

Adrian S. Crossen, from Placer County to Sacramento County.

John D. Keye, from Imperial County to Los Angeles County.

Godfrey Steinert, from Santa Barbara County to Sacramento County.

In Memoriam

Baker, Charlotte Le Breton Johnson. Died at Point Loma, October 31, 1937, age 82. Graduate of the University of Michigan Medical School, Ann Arbor, 1881. Licensed in California in 1888. Doctor Baker was a retired member of the San Diego County Medical Society, the California Medical Association, and the American Medical Association.

✝

Bowen, Fred Phelps. Died at Los Angeles, October 9, 1937, age 57. Graduate of the University of Illinois, College of Medicine, Chicago, 1905. Licensed in California in 1910. Doctor Bowen was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

✝

Breed, Lorena M. Died at Pasadena, October 20, 1937, age 74. Graduate of Northwestern University, Woman's Medical School, Chicago, 1893. Licensed in California in 1895. Doctor Breed was a retired member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

✝

Brem, Walter Vernon. Died at Los Angeles, November 19, 1937, age 62. Graduate of Johns Hopkins University School of Medicine, Baltimore, Maryland, 1904. Licensed in California in 1911. Doctor Brem was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✝

Clark, John Ingram. Died at Santa Ana, November 3, 1937, age 62. Graduate of Rush Medical College, University of Chicago, 1897. Licensed in California in 1904. Doctor Clark was a retired member of the Orange County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✝

Friedman, Joseph Centennial. Died at Banning, October 20, 1937, age 61. Graduate of Rush Medical College, University of Chicago, 1900. Licensed in California in 1927. Doctor Friedman was a member of the Riverside County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✝

Goodridge, Hannah A. Died at Oakland, October 26, 1937, age 73. Graduate of Pulte Medical College of Cincinnati, 1903, and licensed in California the same year. Doctor Goodridge was a retired member of the Santa Clara County Medical Society, the California Medical Association, and the American Medical Association.

✝

Gross, Harold Gordon. Died at Eureka, October 28, 1937, age 70. Graduate of Harvard University Medical School, Boston, 1893, and licensed in California the same year. Doctor Gross was a member of the Humboldt County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✝

Haynes, John Randolph. Died at Los Angeles, October 30, 1937, age 84. Graduate of the University of Pennsylvania School of Medicine, Philadelphia, 1874. Licensed in California in 1887. Doctor Haynes was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✝

Kehr, Edwin Frank. Died at Pasadena, October 31, 1937, age 32. Graduate of Johns Hopkins University School of Medicine, Baltimore, 1930. Licensed in California in 1932. Doctor Kehr was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✝

Miller, Frank W. Died at Los Angeles, November 1, 1937, age 66. Graduate of Rush Medical College of University of Chicago, 1894. Licensed in California in 1899. Doctor Miller was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✝

Millspaugh, Willard P. Died at Los Angeles, October 29, 1937, age 65. Graduate of Columbia University College of Physicians and Surgeons, New York, 1900. Licensed in California in 1903. Doctor Millspaugh was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✝

Smith, Albert Sidney Johnston. Died at San Jose, November 14, 1937, age 68. Graduate of Washington University School of Medicine, St. Louis, Missouri, 1893. Licensed in California in 1900. Doctor Smith was a member of the Santa Clara County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✝

Zirker, Daniel Webster. Died at Merced, October 25, 1937, age 52. Graduate of Cooper Medical College, San Francisco, 1908, and licensed in California the same year. Doctor Zirker was a member of the Merced County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION†

MRS. HOBART ROGERS .....President
MRS. FRED ZUMWALT .....Chairman on Publicity

State News

As this goes to press, word is received from our Membership and Organization chairman, Mrs. Frederick N. Scatena, of the formation of an Auxiliary in Butte County. No details accompany the information further than the fact that, so far, there are fifteen members. We are happy to have them become part of this rapidly growing organization.

May their existence prove of service to the medical profession and the community which they serve. Butte County, we welcome you!

Component County Auxiliaries

Alameda County

Sixty-nine years ago the Alameda County Medical Society was founded. To properly celebrate this important anniversary the members gave a large dinner dance, with their wives, members of the Woman's Auxiliary, as honored guests. It was the first time in all the years that they have been banqueting that the women have been included, and from our viewpoint, at least, it was a grand success.

Three hundred and thirty-five guests assembled at the Hotel Oakland on Wednesday evening, October 27. Many came at seven o'clock for cocktails in the Crystal Room. Dinner was served in the Ivory Room at eight o'clock.

Unique in many respects, probably the most outstanding feature of this delightful affair was the fact that all of the entertainment was furnished by members of the profession. Courses were punctuated by whole-hearted community singing, conducted by an enthusiastic physician. Another was master of ceremonies. Another brought his full-fledged dance band that functioned so tantalizingly that guests left hot juicy steaks to dance between crowded tables. Terpsichore in high form was shown in presentation of a solo tap dance by a prominent East Bay specialist. There was a clever skit written and presented by doctors.

The pièce de résistance, however, was a series of photographs of wives, acquired surreptitiously by the husbands from attics and far corners. These were made into slides by Doctor Templeton and flashed on a large screen over the orchestra stand. The star of the collection was a photograph of our own State President, Etta Rogers, at sixteen, in a long dress and high-topped shoes, apron and cap, holding the horn of a beautiful Jersey cow in her right hand, a milk bucket in her left.

The evening was pronounced "The finest county medical banquet in forty years" by one who has attended them that long, and all agreed that we should have more of them.

MRS. GRANT ELLIS,
Chairman of Publicity.

Fresno County

The Woman's Auxiliary to the Fresno County Medical Society opened its fall season with a luncheon held at the Wish-I-Ah Sanatorium on October 5. We were the guests of Dr. and Mrs. Morrison and the County Board of Supervisors. After the business meeting we were taken on a tour of inspection through the sanatorium. Thirty-five members were present.

Our November meeting was held on November 2 at the University-Sequoia Club, Mrs. A. E. Anderson presiding.

The speakers of the evening were: Dr. W. F. Stein, who spoke on *County Health Department;* Dr. C. Mathenson spoke on the *City Health Department;* Doctor Merrill of the State Health Department chose for his subject, *Social Hygiene.*

At the December meeting, to be held on the seventh of that month, we will have an honored guest, Mrs. Hobart Rogers, our state president.

MRS. R. W. DAHLGREN,
Assistant Publicity Chairman.

Kern County

In the latter part of October, the Woman's Auxiliary to the Kern County Medical Society met in regular session at the home of Dr. and Mrs. Louis Packard, 2900 Twenty-first Street, in Bakersfield. Thirteen members were present. Mrs. J. M. Nicholson presided.

The business meeting followed. Notes from the fifteenth annual convention of the Woman's Auxiliary to the American Medical Association, held at Atlantic City in June past, were read. One new subscription to *Hygeia* was received. It was decided to renew the following donations to *Hygeia*: Taft High School in Taft; Kern County High School in Bakersfield; Emerson and Washington Grammar schools in Bakersfield. New subscriptions will be given to Delano High School in Delano; Wasco High School in Wasco; Stony Brook Sanitarium in Kern County; California Institute for Women, Tehachapi.

Mrs. N. N. Brown thanked the Auxiliary for the kindnesses she received while in the hospital.

"An American Doctor's Odyssey" by Dr. Victor Heiser was ably reviewed by Mrs. C. I. Mead. Tea was served.

MRS. GEORGE BUCHNER,
Secretary.

Los Angeles County

The October meeting of the Woman's Auxiliary to the Los Angeles County Medical Association was held at the Uplifters' Club in Santa Monica on Tuesday, October 26, with Mrs. Eliot Alden presiding. It was announced that sixty-one new members had been signed up in the past month, and many of them were present, reservations for the luncheon totaling 140.

This was a very delightful meeting, being more on the social than on the scientific side. After an attractive buffet luncheon, we had the privilege of hearing Mr. Rodney S. Sprigg sing.

Mrs. Wayland Morrison, a member of the Auxiliary and an author, gave a charming review of her latest book, "The Lost Queen of Egypt." Mrs. Karl von Hagen, also an Auxiliary member, gave a short paper on the new drug, sulfanilamide.

MRS. ROBERT L. CARROLL,
Corresponding Secretary.

Marin County

The usual monthly meeting of the Woman's Auxiliary to the Marin County Medical Society was held at the Marin Golf and Country Club on Thursday evening, October 28. The County Medical Society was joined by the Auxiliary for dinner. We heard a very interesting discussion on *Medical Legislation* by our guest speaker, Mr. Ben H. Read, Executive Secretary of the Public Health League of California. Following the talk the members of the Auxiliary adjourned to the lounge for their business meeting. There were fifteen members present.

Establishing a medical library for the Marin County Medical Society was discussed. Mrs. Harry Hund agreed to look into the matter and report at the next meeting.

It was agreed that the Auxiliary give $10 to the Lending Library, headquarters in Los Angeles.

MRS. R. B. HARTMAN,
Chairman of Publicity.

Sacramento County

The home of Dr. and Mrs. Robert A. Peers in Colfax was the setting for the regular meeting of the Woman's Auxiliary to the Sacramento Society for Medical Improvement on Tuesday, October 19.

†As county auxiliaries of the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Fred Zumwalt, Chairman of the Publicity and Publications Committee, 3880 Clay Street, San Francisco. Brief reports of county auxiliary meetings will be welcomed by Mrs. Zumwalt, and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the Editor to allocate two pages in every issue to Woman's Auxiliary notes.

Mrs. William M. Miller of Auburn and Mrs. R. C. Atkinson of Colfax joined Mrs. Peers as hostesses to some forty members and guests.

A buffet luncheon was served, after which Miss Mary Craven of Sacramento gave a talk on current Broadway plays, and also told of her recent trip through southern United States, including visits to Atlanta, Georgia, and Williamsburg, Virginia, scene of the famous Colonial restoration project.

Mrs. William Van Den Berg presided, and the following special guests greeted the members: Mrs. Hobart Rogers of Oakland, state president; Mrs. Charles Hall of Piedmont, state corresponding secretary; Mrs. Frederick N. Scatena of Sacramento, state first vice-president; and Mrs. Andrew M. Henderson of Sacramento, past state president.

Mrs. Hugh Carmichael,
Chairman of Publicity.

San Diego County

The Woman's Auxiliary to the San Diego County Medical Society is growing in popularity, both in numbers and increased interest and enthusiasm. The Auxiliary is not only a delightful means of social contact for its members, but fulfills a truly educational and philanthropic community need.

It is traditional in the San Diego Auxiliary to open in September with a social luncheon meeting in colorful Coronado Beach and Tennis Club, with bridge and swimming as pleasant diversions. The November dinner dance proves to be one of the outstanding social events of the year. In the Spring, the year closes with a reception and tea for the incoming officers.

An annual bridge benefit in February nets the organization a neat little sum and provides the necessary funds for the yearly philanthropic work.

The Health Institute, sponsored by the Auxiliary, proved to be very successful last year and was well attended. This year even more extensive plans have been made, and a real community interest in this event is anticipated.

In October the Auxiliary heard Mr. Fred Morrison, local director of the Community Chest on *Modern Trends in Social Welfare*. November brought Dr. George D. Huff on Russian Medicine. In December Mrs. E. A. Blondin will review a medical book of current interest. Mrs. Hobart Rogers, our state president, will visit us in January. In April Dr. Lyell C. Kinney will acquaint us with *Pertinent Legislature Measures*. In May, Mrs. Eaton MacKay has for her subject *The History of Hospitals*.

The San Diego Auxiliary has a full and interesting year ahead of them. Under the able leadership of Mrs. Elliot G. Colby we are bound to go forward.

San Diego Auxiliary is happy to report an increased enrollment among the Navy doctors' wives this year.

Mrs. R. Emerson Bond,
Secretary.

San Francisco County

Addressing the Woman's Auxiliary to the San Francisco County Medical Society, Tuesday afternoon, October 19, Dr. Russell V. Lee of Palo Alto, President of the National League for Control of Venereal Diseases, called attention to the amount of sound and brilliant research that has been done on syphilis and gonorrhea and the brilliant achievement that has been made, achievement which might make possible a complete eradication of these diseases if the discoveries that have been made are applied as they can be applied.

Doctor Lee also stressed the enormous prevalence of the diseases in the United States, with some reference to the ravages that are wrought by these diseases. The experiences of the Scandinavian countries were cited, and the control of the diseases there. Then an outline of what he considers the most feasible method of attack in the United States was given. The necessity of the expenditure of considerable amounts of money was related, and the need for medical social service workers to follow up cases until they are finally cured of evidences of infection was pointed out.

The Auxiliary will also have the honor of an official visit from Mrs. Hobart Rogers of Oakland, President of the Woman's Auxiliary to the California Medical Association, who will present some of the highlights of the State Auxiliary activities. Other state officers who will be present are Mrs. Charles C. Hall, corresponding secretary, and Mrs. Harry O. Hund, treasurer.

Mrs. Harry R. Oliver,
Publicity Chairman.

San Joaquin County

The Woman's Auxiliary to the San Joaquin County Medical Society have had two meetings, one in October and one in November.

We have made a survey of the sanitary conditions in our public schools and we are working to have the local Board of Education make the necessary changes that our health officer has suggested.

We have arranged with Dr. Malcolm Merrill, Chief of the State Bureau of Venereal Diseases, to give a lecture in Stockton on December 3 on venereal diseases. We are sponsoring the lecture along with our medical society. The public is to be invited, and special invitations are to be sent the members of the Board of Education and all of the women's clubs in Stockton and vicinity.

Mrs. F. G. Maggs,
President.

Santa Barbara County

Nineteen members were present at the luncheon meeting of the Woman's Auxiliary to the Santa Barbara County Medical Society at the home of Mrs. H. E. Henderson the latter part of October. The meeting marked the opening of the fall season for this organization. Plans were discussed for the annual essay contest which is conducted in the high schools and colleges of the county. Mrs. John Van Paing, chairman, will be assisted by a committee composed of Mrs. Charles S. Stevens and Mrs. Richard McGovney. Rules for the contest will soon be announced.

The president, Mrs. C. T. Roome, announced the committee chairmen who will serve for the coming year: Program, Mrs. Richard McGovney; Public Relations, Mrs. Horace Pierce; Membership, Mrs. Kent Wilson; Hospitality and Telephone, Mrs. Harold Schwalenberg and Mrs. C. W. Henderson; Publicity, Mrs. H. E. Henderson; Girl Scouts, Mrs. Edward Lamb.

Mrs. H. E. Henderson,
Chairman of Publicity.

Santa Clara County

The Woman's Auxiliary to the Santa Clara Medical Association held its first meeting of the year on Monday, October 4, at the Hotel De Anza. Fifty-three members were present. Mr. L. C. Mendenhall of the San Jose State College entertained by the reading of a play. Tea was served.

Mrs. M. D. Baker, vice-president, presided over the November meeting, some forty members and guests gathering at the Hotel St. Claire for luncheon. There was a short business meeting followed by a talk by Dr. Charles Ianne, his topic being the *County Tuberculosis Association*. This was instructive as well as interesting; he mentioned the necessity of supervision in wealthy as well as in poorer communities, and suggested the examination of servants before employment.

We were honored by having as guests our state president, Mrs. Hobart Rogers, and Mrs. Charles Hall, state corresponding secretary. This was Mrs. Rogers' official visit to our organization; she spoke of the aims and purposes of the Auxiliary and how we should proceed to create interest in it; she showed us that there was work to do and how easy it was to do when once the objectives of the organization were known.

Mrs. Harry Templeton, a guest from Oakland, was heard in a delightful program of vocal selections. We feel that our November meeting was one long to be remembered.

The meeting adjourned after a few words spoken by Mrs. Charles Moore and a moment of silence out of respect to our beloved Mrs. Durney, who was so suddenly and tragically taken from our midst.

Mrs. R. Wesley Wright,
Corresponding Secretary.
Mrs. M. D. Baker,
Vice-President.

MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings

American Medical Association, San Francisco, June 13–17, 1938. Olin West, M.D., 535 North Dearborn Street, Chicago, Secretary.

California Medical Association, Hotel Huntington, Pasadena, May 9–12, 1938. F. C. Warnshuis, M.D., 450 Sutter Street, San Francisco, Secretary.

* * *

American Society of Tropical Medicine, New Orleans, November 30 to December 3, 1937. N. Paul Hudson, M.D., Department of Bacteriology, Ohio State University, Columbus, Ohio, Secretary.

Pacific Coast Surgical Association, Los Angeles, February 22–25, 1938. H. Glenn Bell, M.D., University of California Hospital, San Francisco, Secretary.

Medical Broadcasts*

Los Angeles County Medical Association

The radio broadcast program for the Los Angeles County Medical Association for the month of December is as follows:

Thursday, December 2—KECA, 11:00 a. m., The Road to Health.
Saturday, December 4—KFI, 9:15 a. m., The Road to Health; KFAC, 11:00 a. m., Your Doctor and You.
Thursday, December 9—KECA, 11:00 a. m., The Road to Health.
Saturday, December 11—KFI, 9:15 a. m., The Road to Health; KFAC, 11:00 a. m., Your Doctor and You.
Thursday, December 16—KECA, 11:00 a. m., The Road to Health.
Saturday, December 18—KFI, 9:15 a. m., The Road to Health; KFAC, 11:00 a. m., Your Doctor and You.
Thursday, December 23—KECA, 11:00 a. m., The Road to Health.
Saturday, December 25—KFI, holiday (Christmas).
Thursday, December 30—KECA, 11:00 a. m., The Road to Health.

Los Angeles County Charities and Institutional Expenditures.—From a leaflet on allocation of tax moneys, sent out by the Board of Supervisors of Los Angeles County, are taken the following interesting figures:

Charities—Relief—$23,393,912.	
Aid to 40,000 needy persons over 65 years old, for which State and United States will reimburse County to extent of $11,332,750	$15,850,000
Aid to 15,000 needy families and individuals	4,531,604
Care of 12,375 orphans and needy children, for which County will be reimbursed by State and United States to extent of $1,284,550	1,605,688
Aid to 2,600 needy blind persons, for which County will be reimbursed by State and United States to extent of $919,930	1,406,620
Charities—Administration—$3,148,316.	
Administration of relief outside of institutions and rehabilitation of persons who would otherwise be County charges	3,148,316
Institutional Care—$8,446,816.	
Care of 2,561 bed patients and 1,331 out-patients daily in General Hospital	5,430,341
Care of 2,280 helpless, aged, psychopathic and chronically ill persons at Rancho Los Amigos, and 900 persons in rest homes	1,364,078
Care of 995 tubercular patients at Olive View Sanatorium, and 880 patients in rest homes	1,652,397

* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour, and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

American Board of Otolaryngology.—The American Board of Otolaryngology will hold an examination in San Francisco on Friday and Saturday, June 10 and 11, 1938.

Prospective candidates are asked to communicate with the Secretary of the Board, W. P. Wherry, M.D., 1500 Medical Arts Building, Omaha, Nebraska.

New York World's Fair Exhibits on Public Health, Medicine, and Sanitation.—The appointment of Dr. Joseph Peter Hoguet, a surgeon of long and varied experience, as Administrative Assistant and Medical Director of the New York World's Fair of 1939, was announced by Grover A. Whalen, President of the Fair.

In this position, Doctor Hoguet will be in charge of the executive and administrative work of the Division of Public Health, Medicine, and Sanitation. He will also be responsible for the health of members of the Exposition staff and other employees and of visitors attending the Fair when the latter is opened to the public.

Social Disease Control Urged.—The National Broadcasting Company presented the problem of social diseases to its radio audience recently in a carefully worded address by Dr. Morris Fishbein, editor of the *Journal of the American Medical Association.*

Doctor Fishbein's message was that venereal diseases were curable and that scientific knowledge, with the coöperation of the public, was adequate to bring them under control.

His remarks were broadcast at the invitation of the radio system "to emphasize the NBC sympathy with the current campaign against social diseases and to illuminate its policy." Recently NBC banned a broadcast by General Hugh Johnson on the same subject.

In inviting the Chicago physician to speak, Lenox R. Lohr, President of NBC, said Doctor Fishbein, as a physician and editor, was familiar with the problems surrounding network broadcasting on the topic of social diseases.

General Johnson, however, was asked to introduce Doctor Fishbein. His introduction was picked up from Washington.

"Radio reaches the whole family," Lohr telegraphed. "It is our feeling that only persons who, like yourself, are authoritative on the subject and who also are experienced in speaking on it, are qualified to present the material in terms which the general listener can accept."

Doctor Fishbein said in his prepared address:

"Known to the world for centuries, the venereal diseases, sometimes called the social diseases, have gradually developed in increasing prevalence and prominence, while other infectious diseases have gradually been brought under control.

"If these diseases were transmitted chiefly by flies or mosquitoes, they would long since have been stamped out.

"The word 'syphilis' is not a new word. But it has taken more than four hundred years to bring the word out into the light of public discussion. Simply because this disease is so intimately concerned with the personal lives of human beings, simply because it is so closely associated with the maintenance of our moral standards, discussion has been inhibited and control thereby made more difficult."

Referring, then, to the great progress made by medicine in fighting the diseases, Dr. Fishbein said the use of these discoveries "has languished primarily because many people do not know the nature of the disease. Many people do not realize they are curable. Today scientific medicine, combining its efforts with those of public health officials, is beginning an organized, sustained campaign in which the public is participating on a tremendous scale."

Medical College Heads Visit University Center.—The manner in which cancer is treated experimentally with radio-active substances made from common salt, the smallest dissected human skeleton in existence, hardly larger than a man's thumb, and a number of other marvels of medical science, were displayed and outlined to the delegates to the meeting of the Association of American Medical Colleges here recently. The meeting was held in a downtown hotel, and the display took place in the Crummer Room of the University of California Medical School, in San Francisco, which contains priceless medical specimens of many sorts.

The exhibit of the radio-sodium cancer treatment, with charts, was directed by Dr. J. G. Hamilton, who is working with both the medical school and the physics radiation laboratory in Berkeley in the development of this new treatment. The radio-sodium is produced by the radiation laboratory.

The exhibit also included late developments in the treatment of blood diseases, under the direction of Dr. S. P. Lucia; the treatment of diabetic children, under the direction of Dr. F. S. Smyth; surgical procedures, under the direction of Doctors H. C. Naffziger and F. W. Lynch, and the influence of the thyroid gland on the absorption of sugars, under the direction of Dr. T. L. Althausen.

In addition to the exhibits in the Crummer Room, the delegates viewed other demonstrations of various types throughout the other buildings in the Medical Center.

A feature of the meeting was an informal dinner on the evening of Monday, October 25, the opening day of the convention, at which Dr. Monroe E. Deutsch, vice-president and provost of the University of California, was a speaker. The delegates also visited the campus of the University in Berkeley on the afternoon of the same day.

American Academy of Pediatrics.—The annual meeting of Region IV was held in Los Angeles on November 4, 5 and 6, at the headquarters at the Ambassador Hotel.

The program follows:

Thursday Afternoon, November 4

Recent Investigations with the Tuberculin Ointment Patch Test—Ernst Wolff, M.D., San Francisco.

Pyloric Stenosis—Harmon Tremaine, M.D., Boise, Idaho.

A Case of Glycogen Storage Disease—Ezra Fish, M.D., Beverly Hills. Remarks on Peritoneoscopy as a Diagnostic Procedure in This and Similar Conditions—John C. Ruddock, M.D., Los Angeles (by invitation).

Calcium and Phosphorus Balance Studies in Children with Latent Hilar Glandular Tuberculosis—William A. Reilly, M.D., San Francisco.

A Case of Unusual Fungus Infection—Rieta Hough, M.D., San Diego (by invitation).

Friday Morning, November 5

Care of Skin of the New-Born, Prevention of Infection—L. Howard Smith, M.D., Portland.

The Undescended Testicle — Norman Nixon, M. D., Los Angeles.

The Present Status of Endocrinology as Related to Pediatrics—E. Kost Shelton, M.D., Los Angeles (by invitation).

Convalescent Serum: Its Uses and Preparation—C. M. Hyland, M.D., Los Angeles (by invitation).

Growth and Development as Related to Pediatric Surgery—Herbert E. Coe, M.D., Seattle.

Friday Afternoon, November 5

The Course of Asthmatic Children in the Southwest—Vivian Tappan, M.D., Tucson.

Results of Eight Years' Treatment of Epilepsy in Children—Howard Cooder, M.D., Los Angeles (by invitation).

Some Observations on the Results of Direct Blood Transfusions—Alonzo Cass, M.D., Los Angeles (by invitation).

Is Cooley's Erythroblastic Anemia a Disease Entity?—Madeleine Fallon, M.D., Los Angeles (by invitation).

Encephalography in Children—Harry Dietrich, M.D., Los Angeles (by invitation).

Saturday Morning, November 6

Additional Uses for the Oxcillatocapacigraph—Barnet E. Bonar, M.D., and Con Fenning, M.D., Salt Lake City.

Treatment of Adult Type of Pulmonary Tuberculosis in Childhood—Lloyd B. Dickey, M.D., San Francisco.

Notes on Therapy in Communicable Diseases—Paul M. Hamilton, M.D., Alhambra.

Intestinal Allergy—Phillip E. Rothman, M.D., and Helen Hopkins, M.D., Los Angeles (by invitation).

Wood-Tick Paralysis in Children (Motion Picture Demonstration)—E. J. Barnett, M.D., Spokane.

University of California Hospital Proves Wide Service to State.—The state-wide service rendered by the University of California Hospital in San Francisco is strikingly shown in a report made by Dr. W. E. Carter, director of the out-patient department, to President Robert Gordon Sproul. This report shows that in the last five years to July 1, there have been 11,167 patients from fifty-one of California's fifty-eight counties, sent by 2,351 physicians.

These patients are sent to the University hospital either because of lack of adequate hospital facilities in their home communities, or to the consultation service conducted by the out-patient department because of ailments that require diagnostic methods and medical treatment not immediately available to the local physician.

Modoc, in the far northeastern portion of the State, has sent fifty-eight patients; Del Norte, small county in the northwestern corner, fourteen; and Imperial, on the Mexican border, three. Others have come from eastern Inyo, Mono and Lassen, from northern Siskiyou, from mountainous Calaveras, Eldorado, Mariposa and Tuolumne. San Francisco and Alameda counties show many patients likewise, as do the other populous counties of the State.

"These figures indicate that the University of California Hospital has been enabled to be of assistance to a large number of practicing physicians throughout the State, where they are confronted with patients financially unable to meet the fees of special consultants, whose disorders are confusing and who are not able to provide the cost of adequate medical attention for themselves," Doctor Carter said.

Dr. William F. Snow Is Honored.—On Friday evening, October 1, more than 400 friends and admirers of Dr. William F. Snow gathered at the Waldorf-Astoria to do him honor. From all ranks of medical, educational, political, public health and welfare workers came an enthusiastic response to the idea of paying tribute to the man whose life has been devoted to service in the difficult field of social hygiene. Hundreds of letters, telegrams, and radio messages poured in from friends who could not be present.

Admiration, affection and sincerity struck the keynote of the tributes from a distinguished panel of former and present colleagues and associates, including as toastmaster, Major-General Merritte W. Ireland, and as speakers, Dr. Wilbur A. Sawyer, Mr. Jerome D. Greene, Sir Arthur Newsholme, Miss Katharine F. Lenroot, Dr. Livingston Farrand, Surgeon-General Thomas Parran, and Dr. John H. Stokes.

The climax of the evening was the presentation by Dr. Edward L. Keyes of a medallion portrait of Doctor Snow. This beautifully sculptured bronze plaque is the work of Miss Brenda Putnam and was made possible by the subscriptions of friends of Doctor Snow. From the original sculpture a medal will be struck from time to time and awarded as the William Freeman Snow Medal for Distinguished Service in Social Hygiene. A committee of the Board of Directors of the American Social Hygiene Association will administer the fund and make the awards.

Trying to give voice to the emotions welling within, Doctor Snow, with characteristic modesty, said he could only be grateful that he was counted as one "of the innumerable company which has moved steadily through the generations discovering, applying, improving the opportunities for long life and sound health." And then, typically, he asked, "Where do we go from here?" His own answer was of the essence of his life's philosophy, "Straightforward on the broad three-lane highway which can now be built over the trail which the many pioneers in this movement have blazed."

Doctor Snow was formerly Director of Public Health, State of California.

American Public Health Association. — The sixty-sixth annual meeting of the American Public Health Association, held on October 5 to 8, in New York City, registered a larger number of delegates than at any meeting in the Association's history. The total count was 3,549. The next highest registration was at Chicago in 1928, when slightly more than 2,500 were registered.

Both technical and scientific exhibits were so consistently good, the Governing Council memorialized them in a resolution of commendation.

The awards for scientific exhibit excellence were announced as follows:

1. The Rockefeller Institute for Medical Research and The International Health Division of the Rockefeller Foundation.
2. Otto Neurath, President, International Foundation for Visual Education.
3. New York World's Fair, 1939, Inc.
4. Metropolitan Health Department of British Columbia, Canada.
5. New York City Cancer Committee.
6. American Medical Association.

A number of important resolutions were adopted. Some of the outstanding ones establishing Association policies may be summarized briefly as:

A resolution reiterating the attitude of the Association toward the removal of public health administration from political interference and control.

A resolution in favor of congressional appropriations for a minimum of two years for a nation-wide statistical survey of the accident problem.

A resolution supporting the development of more adequate diagnostic services for the control of syphilis.

A resolution supporting the Vinson Bill as the best procedure and organization for lessening the danger to public health from stream pollution.

A resolution pledging active support to measures which seek to secure better maternal and neonatal care.

A resolution authorizing a special committee to study the public health aspects of medical care, especially of chronic diseases.

As to Association leadership for the coming year, Dr. Arthur T. McCormack was inducted into the office of president, Mr. Abel Wolman, Professor of Sanitary Engineering, Johns Hopkins University, Baltimore, Maryland, was named president-elect.

The 1938 annual meeting will be held in Kansas City.

Second National Social Hygiene Day.—"Stamp Out Syphilis—Foe of Youth," will be the theme of the second National Social Hygiene Day to be observed on February 2, 1938, in a statement sent out by the American Social Hygiene Association, 50 West Fiftieth Street, New York, New York.

Of the half-million known new cases of syphilis each year, one in five is found among young men and women under twenty years of age. More startling, perhaps, is the fact that half of all syphilis infections are contracted by individuals in the age group of twenty to thirty years, a group which represents only one-fourth of the nation's population.

In line with the youth theme, the American Social Hygiene Association is enlisting the interest of those national organizations whose primary concern is with the problems of young people. The American Youth Congress, the General Federation of Women's Clubs, Parent-Teacher organizations, church and "Y" groups, service clubs, and many others, will be asked to join in special observance of the proposed program.

Many were active during the period of the First National Social Hygiene Day early this year. New coöperating organizations, impressed by the success of that pioneer venture, have come forward voluntarily to share in the task of making the second Social Hygiene Day an even greater success.

Last February's event resulted in more than 500 conferences and meetings, 135 radio periods, and a sweeping flood of newspaper and magazine comment.

Indications point to an even greater national response to the 1938 Social Hygiene Day, and all agencies and persons who have at heart the success of the campaign to stamp out syphilis are urged to join in this national endeavor to tell all the people the facts about this enemy of youth and public health and how it may be conquered.

In addition to preliminary activity for the second National Social Hygiene Day, the American Social Hygiene Association, through its National Anti-Syphilis Committee, is organizing state and local committees to assist in the appeal for $500,000, which will enter its general solicitation phase immediately after February 2, 1938.

General John J. Pershing heads the committee, Dr. Ray Lyman Wilbur is vice-chairman, and Charles H. Babcock is chairman of the Executive Committee. Over two hundred leaders in the professions and business have endorsed this national appeal and have pledged themselves to aid in the fight to "stamp out syphilis."

Press Clippings.—Some news clippings dealing with matters related to public health activities or medical practice follow:

Doctors Take Syphilis Tests to Begin Drive

Leaders Map Distribution of 450,000 Cards

Twenty prominent physicians and social workers gave impetus to the Chicago syphilis control program on October 3 by volunteering to have blood tests made as a prelude to the city-wide distribution of 450,000 freed blood-test cards.

All Reliefers to Get Cards

"We want it known that we believe what we preach," said Doctor Bundesen, as the others about the luncheon table signed cards expressing their willingness to submit to blood tests.

Wide distribution of the free test cards was assured by the coöperation promised by those present. Charles E. Miner, State WPA Director, and Leo M. Lyons, Chicago Relief Administrator, declared that cards would be given to all on WPA projects and on relief, and the representatives of the private charitable organizations joined with them.

Representing the private organizations were Joel D. Hunter, United Charities; Wilfred S. Reynolds, Council of Social Agencies; S. A. Goldsmith, Jewish Charities; and Father Vincent Cooke of the Catholic Charities.

Can Handle Five Thousand a Day

Distribution of the cards will be regulated by the Health Department on the basis of returns of blood specimens to the city and state laboratories. About five thousand specimens can be examined each day by the combined laboratory forces.

Each person receiving a card is asked to take it to a physician, who is requested to take a specimen of the subject's blood and send it to the city laboratory. The results will be reported to the physician who, in turn, will communicate them to the subject.—*Chicago Tribune*, October 14, 1937.

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Funds Promised for Nation-Wide Paralysis Fight

Funds will be ready next spring to help public health agencies wherever an infantile paralysis emergency occurs, Dr. Paul de Kruif, writer on medical topics and secretary of President Roosevelt's Infantile Paralysis Research Commission, announced at the annual dinner of the American Academy of Ophthalmology and Otolaryngology last night. —*Chicago Tribune*, October 14, 1937.

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Social Workers Undergo Tests

Ninety-Four Take Examination Given in Los Angeles

One hundred and ninety-eight social workers volunteered for examinations when tests to determine their qualifications for this type of public service were conducted in Los Angeles and five other California cities recently, Harry F. Henderson, Chairman of the Board of Examiners of the California Conference of Social Workers, announced.

Miss Mary Stanton, Executive Secretary of the Los Angeles Council of Social Agencies, was in charge of the tests, which were given ninety-four candidates in this city. Sixty-four persons submitted to the tests in San Francisco, nine in San Bernardino, eight in Sacramento, and seven in Fresno.

"There are 1,513 persons registered as active social workers in California," Henderson said, "and since registrations were started a total of 1,654 persons have signed."

To Seek Law

Registration and examination of social workers, Henderson pointed out, is in line with the federal demands that social standards be elevated.

"It is the hope of the conference, at the next session of the legislature, that legislation will be enacted that will take over this voluntary project and make registration of social workers compulsory," he explained, "so they may have the uniform professional standing now enjoyed by other professional workers, such as teachers, doctors, and lawyers."—*Los Angeles Times*, November 14, 1937.

* * *

Los Angeles County Hospital Cuts Mortality Rate

Reduction Since 1930 at County Institution Equals 1,800 Cases

Reductions in mortality rate at the General Hospital since 1930, in effect, added 1,800 patients to the number of recoveries in the last three fiscal years, according to medical records on file at the institution.

Credits Doctors

Major credit for this accomplishment belongs to the doctors of the attending staff, who donate their services to

treat indigents acutely ill, declared Rex Thomson, County Superintendent of Charities, commenting on the report.

The records show that during the three fiscal years following completion of the institution's new acute unit in December, 1933, the number of patients recovering has increased to 91.43 per cent of the total treated.

Progress Shown

Comparison of the medical report for 1930-1931 and the same report for 1936-1937 indicates the significant progress that has been made.

Last year 99.7 per cent of the maternity patients and 92.5 per cent of the babies born left the hospital after an average stay of 8.9 days. Seven years ago the figures were 98.4 per cent and 86.5 per cent, respectively. The average stay was 10.3 days.

Recoveries following operations have increased from 92.9 per cent to 93.8 per cent.—*Los Angeles Times.*

Pacific Southwest Academy to Meet

The annual fall public meeting of the Pacific Southwest Academy, local center of the American Academy of Political and Social Science, will be held on November 22, according to announcement today by Dr. Arthur G. Coons, professor of economics and dean of the men at Occidental College, president of the group. Sessions will be held at the University of Southern California.

Dr. Abraham Epstein of New York, executive secretary of the American Association for Social Security, will speak at a dinner meeting on the subject, "Does the Social Security Act Provide Security?" The dinner meeting will be held at the Town and Gown Club on the University of Southern California Campus.—*Los Angeles Herald,* November 12, 1937.

According to Prescription

What the public needs, says Dr. Salvatore P. Lucia of the University of California, speaking at the Association of American Medical Colleges convention here, is a "health coördinator, physician, psychiatrist, and confessor all in one."

We can cheer up to some extent over Doctor Lucia's words, for we seem to have something approaching his specifications. Our Doctor Geiger is a physician, of course. So far as coördinating is concerned, a health officer in San Francisco can go neither to right nor left without trampling somebody's toes. To keep his department in efficient action as Doctor Geiger does, he must be as adroit an adjuster as a mahatma dancing on red-hot eggs and Clyde Beatty lashing the lions and tigers through the flaming hoops.

On the issue of psychiatry, suffice it to say that Doctor Geiger succeeds in getting most of his essential policies through the Board of Supervisors, which calls for an understanding of the strange working of strange minds of the highest degree.

As to a confessor, they do say that the good doctor has locked in his breast some political secrets confided to his safekeeping by political transgressors upon his preserves as health officer, and who have unburdened their hearts under duress and have obtained absolution only upon penance and resolution to do better.

The secret is that Doctor Geiger keeps access open to the public prints, an arena where few gladiators care to step forth to meet him on the bloody sands.—*San Francisco Chronicle,* October 28, 1937.

The Doctors Lead

A conclusion that intensive training pays material dividends appears certain when it is announced that doctors and lawyers lead the nation in professional incomes. Disclosure of average incomes in a group of professions also shows that engineers, dentists, architects, college teachers and journalists follow in that order.

No one works harder to attain professional standing than a doctor. He more than any other professional man meets the supreme test of reality. He must combat actual physical suffering in all its forms. And to do this he must grind and grind and subordinate his own life. Lawyers work hard, too, to attain their status, but theirs is a more academic life.

Even so, the figures of $4,850 per year for doctors and $4,730 for lawyers are not any too impressive. A mediocre prizefighter, as has been pointed out by moralists so often, makes much more in a single evening.

But it does seem to be a fact that concentrated effort toward a professional goal at least assures a fair income. Training thus becomes valuable by test-tube proof.—Editorial, *Los Angeles Times,* November 28, 1937.

Curb Indigent Influx, Cut Aid, Is Plan

A sweeping eight-point plan to reduce drastically the cost of relief in Los Angeles County through the elimination and exclusion of indigent nonresidents, had been launched today by the Los Angeles Chamber of Commerce.

Alarmed at the rapid increase in relief costs which in the fiscal year 1936-1937 amounted to $76,600,000, in this county alone, President Byron C. Hannat of the Chamber joined with F. L. S. Harman, assistant secretary, in issuing a public statement in which it was agreed:

"Los Angeles County recognizes its responsibility to care for its own residents who are in need, but does not feel obligated to take care of nonresident indigents from other states."

Pointing out that, because of legislation here, California is recognized throughout the nation as having particularly generous relief and pension laws, Assistant Secretary Harman outlined the following eight-point program which he said the Chamber would immediately urge:

1. Passage of a State exclusion law at the next session of the legislature which would provide for stationing officers at the border to exclude nonresident indigents.
2. Promote rigid enforcement of State Department of Health quarantines at the border to prevent admittance of persons afflicted with disease.
3. Insist on the right of State highway patrolmen to arrest indigents on the State highways and to charge them with vagrancy.
4. Urge the Supervisors of Los Angeles County and the Supervisors' Association to call on the Governor to use his executive power to bring into play all existing legal means of excluding indigent nonresidents.
5. Urge the Supervisors of Los Angeles County to deny relief to nonresident indigents as prescribed in a resolution of July 20, 1937.
6. Request the employers of Los Angeles County to give preference to bona fide residents of the State.
7. Carry on a continuous publicity campaign throughout the nation so that other states may be aware of California's intention to limit its relief aid to its own resident citizens.
8. Request the Federal Congress to adopt some kind of program whereby these indigents may be prevented from migrating from state to state, and that, where federal aid is necessary, it will be given in their own home state.—*Los Angeles Herald,* November 4, 1937.

Dr. A. J. Cronin Assails Government Medical Control

Boston, Nov. 23—(By International News Service).—Dr. A. J. Cronin, English physician who turned from writing medical prescriptions to authoring a best seller, today issued a new blast at his old profession and a mournful plaint for his new one.

He criticized the 450 American physicians (125 of them New Englanders) who endorsed a plan for federal control of medicine. It kills medical integrity, he declared, and makes the profession less alert. . . .

He revealed he may bring his wife, also a physician, and his son, now only four weeks old, to America and become an American citizen.

Assailing proposed government control of medicine, Dr. Cronin, whose book revealed the alleged "fee splitting" rackets by physicians, needless operations, $200 injections of water, and "merry-go-round" conferences of specialists, declared:

"To allow your government to control medicine is to ruin the profession. Unethical practices, which are rampant everywhere, cannot be cured by socialization of medicine.

"This would be deplorable in the United States, where the organization, progress and administration of medical science is far superior to European countries. In most European countries the physician is a Jack-of-all trades and master of none. The specialist is practically unknown."—*Los Angeles Evening Herald and Express.*

United States Seizes Huge Supply of Deadly "Elixir" Drug in San Francisco

San Francisco, Nov. 13.—(International News Service).—The federal government today confiscated sixteen gallon bottles and eighty-five pints of elixir of sulfanilamide following a court ruling of Federal Judge A. F. St. Sure ordering the drug forfeited to the government.

Judge St. Sure's ruling was based on provisions of the Federal Pure Food and Drugs Act. Seizure of the drug was made on ground that it was mislabeled and failed to comply with the federal formula for elixir. Deadliness of the drug did not enter into the seizure because of limitations of the Act.

Hospital Aides Pay Raise Hearing Set

Representatives of the Committee for Industrial Organization, acting on behalf of employees of Los Angeles

County General Hospital, and representatives of the American Federation of Labor, acting for truck drivers and steam-shovel operators of the county road department recently won a hearing for an increase of pay and adjustment in working conditions, before the Board of Supervisors.

Attorney A. H. Schullman, acting for the State, County, and Municipal Workers of America, a C. I. O. affiliate, asked that a report of the Bureau of Budget Research, recommending a denial of salary increases for county hospital employees, be rejected.

He stated that an increase of pay was desirable, as the cost of living has been boosted 15 per cent in Los Angeles County during the last year. . . .

* * *

Red Cross Will Organize Blood Donation Unit

A volunteer blood transfusion service for Phoenix hospitals will be organized under the auspices of the Maricopa Chapter, American Red Cross, Dr. J. D. Hamer, chairman of the organization's life-saving committee, announced yesterday.

The Phoenix project will be the first of its kind west of the Mississippi River and the third in the United States. Augusta, Georgia, and New York City Red Cross chapters organized similar service groups earlier this fall, Doctor Hamer said.

"This is a community service calling for a fine type of healthy, young and middle-aged men who are willing to give their blood in cases where an emergency exists and a patient is unable to pay for the transfusion," Doctor Hamer said. "We expect to enlist a group of between seventy-five and one hundred such men, who will not be called upon oftener than four times a year, possibly not more than once, to give a pint of their blood to save the life of another."

Doctor Hamer said the volunteers would be checked to see that they are healthy and will not suffer from the loss of blood. If acceptable, they will have their blood classified as to type and grouping and given a Wassermann test.

When the lists of classes are made up, they will be placed on file at the hospitals and in the Red Cross office. The cooperation of the police department and its new ambulance is expected in bringing volunteers to the hospitals when needed, Doctor Hamer said.

"The primary purpose of the blood transfusion service is to enroll a sufficiently large number of donors to meet the demand of serving patients who are unable to pay the required fee," he added. "This service is not intended for patients able to pay. Those desiring to aid in this work should telephone or visit the chapter office in the old Chamber of Commerce building, East Van Buren Street, for additional information."—*Arizona Republic*, Phoenix, November 17, 1937.

* * *

Year's Auto Toll in Los Angeles Is 881 as Three More Die

Three persons died in traffic, bringing the total of auto fatalities in city and county for the year to 881.

The dead: Mrs. Osona Cabook, 1770 West Thirty-seventh Street; Mrs. Inez Soliz, 908 Gerraghty Street; unidentified man about sixty-five.

Police also identified the body of a woman killed by a hit-and-run driver Sunday as that of Mrs. Esther Dolbear, seventy-nine, of 4719 Grammercy Place. She was struck in the 1700 block on West Forty-eighth Street.

Mrs. Cabook died in Methodist Hospital of injuries she suffered last November 6 when struck while crossing Thirty-sixth Place and Western Avenue.

Mrs. Soliz was struck last Friday. She died in General Hospital.

The unidentified man was found by the railroad tracks in the 1200 block on San Fernando Road. He had apparently been run over by a train.—*Los Angeles Examiner*, November 17, 1937.

* * *

Fight Against Bubonic Plague

California Finds Rats and Squirrels a Special Problem

Washington, Nov. 20—(AP).—New funds obtained under Social Security law have enabled the United States Public Health Service to increase its vigil against disease in California, but rats and squirrels are still its special problem.

Though few Californians may realize, since 1900 the California State Health Department and the Public Health Service has waged ceaseless warfare in the State against these rodent carriers of the dread bubonic plague.

Kept Under Check

Through poisoning, trapping, and other exterminating and control measures, likelihood of an outbreak of the contagious disease has been kept under constant check during the past thirty-seven years, but federal officials say it still represents a very real danger to the human population of the Golden State.

So, the Service revealed today, existing funds for the use of rodent control have been augmented with earmarking of $32,140 of the State's 1938 public allotment of $366,823 under the Social Security Act for expenditure in dealing with this peculiar problem.

Other Allotments

Other portions of the allotment have been budgeted by the State health officials for various other activities, including $59,800 for venereal disease control. Medical aid to itinerants was allotted $20,075, and migratory nurses, $7,400 (both new activities prompted by a growing health problem created by presence of numerous migratory workers in the State) county health administration, $36,935; public health education, $16,740; and bacteriological laboratories, $7,500.

But the federal service regards rodent control as the special public health problem which interests it most.—*Los Angeles Times.*

* * *

New "Radium" Discovered

Synthetic Product Reduces Cost

Palo Alto, Nov. 27—(U. P.).—Dr. Paul Kirkpatrick, secretary of the local American Physical Society, announced today that a new "synthetic radium" had been discovered which cost only a fraction of the present $100,000 rate for one gram of real radium.

The new radioactive substance will be reported on in papers by physicists experimenting in the field of atomic nuclei at a meeting of physicists at Stanford University, December 17-18, Doctor Kirkpatrick said.

He said the therapeutic values of the newly discovered substance match those of radium and that many grams of the substance can be made for a fraction of the cost of radium.—*Los Angeles Examiner*, November 28, 1937.

* * *

Fund to University of California for Radium Substitute

National Cancer Advisory Council Grants $30,000 in Quest for Cyclotron Laboratory

Washington, Nov. 27—(AP).—The National Cancer Advisory Council gave official recognition today to the search for a substitute for radium in fighting cancer.

The Council announced a grant of $30,000 to Dr. E. O. Lawrence of the University of California for use toward establishment of a cyclotron laboratory.

The cyclotron, Dr. Ludwig Hektoen of Chicago, director of the Council, explained, is an apparatus that produces radioactive substances. Doctor Hektoen and Dr. Thomas Parran, Jr., Surgeon-General of the United States, said the cyclotron might "change the whole situation" and result in more effective cancer-fighting weapons.

* * *

Pension Law Test Looms

Los Angeles County May Lead in Fight on Return of Liens

Possibility of Los Angeles County taking the lead in starting a lawsuit to test the validity of the new law adopted by the last Legislature, which compels the county to cancel approximately 3,000 mortgages and liens on properties taken in return for aid given in the past to elderly persons, was seen yesterday following a conference between members of the Board of Supervisors and County Counsel Mattoon.

Action Expected

Action relative to what course should be followed is expected to be taken by the Board of Supervisors at its meeting Tuesday.

Under the provisions of the new law all counties must cancel the mortgages and liens given in return for aid and forbids the taking of new ones in the future.

At present Los Angeles County, through its County Department of Charities, has taken about 3,000 of such mortgages and liens, amounting to approximately $1,000,000, on property valued between $3,000,000 and $4,000,000.

Tremendous Cost

If a suit is filed it will be to test that part of the law which forces the cancellation of the paper taken in the past and now held by the county, according to Roger W. Jessup, Chairman of the Board of Supervisors.

"Liberalization of the old-age pension laws has already cost the taxpayers of the county a tremendous sum," Chairman Jessup declared. "Loss of the mortgages and liens on properties would be an added burden for them to shoulder."—*Los Angeles Times*, November 28, 1937.

LETTERS

Concerning scientific exhibits at American Medical Association San Francisco session in 1938.

AMERICAN MEDICAL ASSOCIATION
SCIENTIFIC EXHIBIT

Chicago, Illinois, November 6, 1937.

To the Editor:—Will you kindly print the enclosed notice concerning the scientific exhibit of the American Medical Association in one of the early numbers of CALIFORNIA AND WESTERN MEDICINE—preferably December?

535 North Dearborn Street.

Sincerely yours,
THOMAS G. HULL,
Director, Scientific Exhibit.

* * *

Application blanks are now available for space in the Scientific Exhibit at the San Francisco session of the American Medical Association, June 13 to 17, 1938. The Committee on Scientific Exhibit requires that all applicants fill out the regular forms.

Application blanks may be obtained from the Director, Scientific Exhibit, American Medical Association, 535 North Dearborn Street, Chicago, Illinois.

Concerning nonprofit hospitals: Chapter 882, California Statutes of 1937.

* * *

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH

San Francisco, November 8, 1937.

To the Editor:—Enclosed find copy of opinion rendered by the Attorney-General's office, in reference to nonprofit hospitals.

313 State Building.

Very truly yours,
W. M. DICKIE,
Director of Public Health.

* * *

(Copy)

STATE OF CALIFORNIA
LEGAL DEPARTMENT

U. S. Webb
Attorney-General

San Francisco, September 25, 1937.

Hon. Walter M. Dickie, M.D.
Director, Department of Public Health
313 State Building
San Francisco, California

Dear Sir:

In your communication of the 15th instant you submit rules and regulations adopted pursuant to Chapter 386, Statutes of 1935, and ask that the same be modified to accord with Chapter 882, Statutes of 1937, which latter statute repealed the former.

Section 11501 of Chapter 882 provides no certificate of approval may be issued to either a corporation—nonprofit—or a hospital, unless the hospital is possessed of "adequate physical facilities, mechanical equipment, and personnel for the study, diagnosis, treatment and care of patients."

By Section 11503, the State Department of Public Health has the right and power to investigate, regulate, and enforce the hospital standards set forth in Sections 11501 and 11502.

Thus the power to regulate (to adjust or control by rule, method or established mode; to direct by rule or restriction: Webster's New International Dictionary) includes the right to adopt regulations consistent with the limitations expressed in the granting clause and is specifically vested with the Department of Public Health.

You are hence advised that the following regulations submitted by you, properly come within the purview of the expressions enumerated in Sections 11501 and 11502 of Chapter 882, Statutes 1937.

1. A modern physical plant, properly equipped for the comfort and scientific care of the patient.
2. Clearly stated constitution, by-laws, rules and regulations setting forth organization, duties, responsibilities, and relations.
3. A carefully selected governing body having complete and supreme authority for the management of the institution.
4. A competent, well-trained executive officer or superintendent with authority and responsibility to carry out the policies of the institution as authorized by the governing body.
5. An adequate number of efficient personnel, properly organized and under competent supervision.
6. An organized healing-art staff of ethical, competent physicians for the carrying out of the professional policies of the hospital, subject to the approval of the governing body.
7. Adequate diagnostic and therapeutic facilities with efficient technical service under competent healing-art supervision.
8. Accurate and complete clinical records filed in an accessible manner so as to be available for study, reference, follow-up, and research.
9. Group conferences of the administrative staff and of the healing-art staff to review regularly and thoroughly their respective activities in order to keep the service and the scientific work on the highest plane of efficiency.
10. A humanitarian spirit in which the best care of the patient is always the primary consideration.

However, the duty and obligation of passing upon whether a given hospital measures up to the standards prescribed by Section 11501, rests in each case with the State Department of Public Health. This duty does not commence until after the inspection of the hospital making application to render hospital services under the hospital service plan.

Regulations adopted pursuant to Chapter 882 cannot deprive applicants of their right to a positive or negative finding upon the facts of each particular case.

Very truly yours,
U. S. WEBB, *Attorney-General.*
(Signed) By Lionel Browne, *Deputy.*

Concerning clinical laboratory technologists and technicians.

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH

San Francisco, November 8, 1937.

To the Editor:—Enclosed find copy of opinion rendered by the Attorney-General's office on Chapter 804, Statutes of 1937, governing clinical laboratories.

313 State Building.

Very truly yours,
W. M. DICKIE,
Director of Public Health.

* * *

(Copy)

STATE OF CALIFORNIA
LEGAL DEPARTMENT

San Francisco, November 5, 1937.

Hon. Walter M. Dickie, M.D.
Director of Public Health
313 State Building
San Francisco, California

Dear Sir:

In your communication of September 7th, you ask whether the new Clinical Laboratory Bill, being Chapter 804, Statutes 1937, and which is, in effect, a revision of the Clinical Laboratory Bill of 1935, heretofore declared by this office to be unconstitutional, is constitutional.

In reply thereto, permit me to state I have examined the bill in question and find it to be constitutional.

To reach this conclusion, a review of the Act is required. The chapter referred to went into effect on the twenty-seventh day of August, 1937, and is operative as to clinical laboratory technologists and technicians who are granted certificates without examination because of time spent in actively doing the work required by Sections 3 and 4 for the period prescribed for securing the respective licenses. The penal provisions of the Act, however, are not effective until January 1, 1938. Thereafter, according to Section 1, no person, firm, association or corporation may conduct,

maintain or operate a clinical laboratory as defined in said Act unless such laboratory be under the immediate supervision and direction of a licensed clinical laboratory technologist or a person holding a valid and unrevoked physician's and surgeon's certificate issued under the provisions of the State Medical Practice Act of this State; thereafter, according to the same section, no person may lawfully make any test or examination requiring the application of the fundamental sciences, such as bacteriology, biochemistry, serology or parasitology, unless said person possesses an unrevoked certificate issued by the State Board of Public Health as a qualified technician in the subject or subjects concerned with the test or examination, or possesses an unrevoked certificate as a clinical laboratory technologist, or is the holder of a valid and unrevoked physician's and surgeon's certificate, issued under the provisions of the State Medical Practice Act of this State.

Pursuant to the section above referred to, the State Board of Public Health has authority, by regulation, to provide for the exemption of one or more technicians in each laboratory, who shall be called apprentices.

Section 2 defines a clinical laboratory as follows:

> Any place, establishment or institution organized and operated for the practical application of one or more of the fundamental sciences by the use of specialized apparatus, equipment and methods for the purpose of obtaining scientific data which may be used as an aid to ascertain the presence, progress and source of disease.

Section 3 provides for the issuance of a certificate of licensure as clinical laboratory technologist to each person holding a degree in one or more of the fundamental sciences, issued by a *recognized* institution, who is found by the Board to be *properly qualified,* after written, oral or practical examination, conducted under such rules and regulations as the Board may from time to time promulgate. The section referred to does not define a recognized institution, and hence is so vague and uncertain that the portion thereof relating to the holding of a degree from a recognized institution is ineffectual for any purpose. The legislature has failed to prescribe what body must recognize the institution or upon what basis institutions should or should not be recognized. To read into the portion of said section referred to a requirement that such institution should be subject to recognition by the State Board of Public Health is not warranted by the context and would constitute at least quasi judicial legislation. On the other hand, principles of statutory construction do not permit an interpretation based upon a delegation of legislative authority unless the legislature prescribes that an administrative tribunal may adopt rules or regulations relating to technical, health or medical subjects, and leaves the enforcement thereof to technical or trained boards or persons. In no instance is there any reported case indicating that such delegation is proper where a method for measurement is not supplied in the legislation for the administrative officer or tribunal.

It is the view of this office, however, that the legislature did not intend that the entire Act fall because of its use of the ineffectual expression "recognized institution," but rather meant the act to stand, provided persons could be found who were properly qualified to secure a certificate of licensure, after examination as clinical laboratory technologists. By eliminating the requirement for the holding of a degree in a recognized institution and permitting all applicants after the first day of January, 1938, to take examinations for certificate of licensure as clinical laboratory technologists, the Act, practically in its entirety, may be given effect. Elimination of the requirement as to the holding of a degree is permitted because of the legislative expression in Section 11 of said Act that should any portion of the Act be unconstitutional, it would have passed the remainder thereof irrespective of such unconstitutional features.

The latter part of Section 3 provides for the granting of licensure as clinical laboratory technologist without examination to those having the qualifications therein prescribed, who make application to the Board before January 1, 1938, and who pay the required fee. This so-called blanketing in of those persons practicing as clinical laboratory technologists is not subject to constitutional objection.

Section 4 is practically identical to Section 3, except that such section has no requirement concerning the length of time one must be engaged in technical work in a clinical laboratory before one might be permitted to take either written or practical examinations for certificate as technician.

Section 5 is the penal section of said Act, and prohibits, after January 1, 1938, persons not certificated as technologists or technicians to thereafter act as such. It likewise prohibits persons, firms, associations or corporations from employing technicians, except that they be certificated as provided for in said Act or are acting as apprentices as provided for in regulations to be adopted or enacted by the State Board of Public Health. This would indicate a legislative intention to leave to the State Board of Public Health the right to enact regulations not contrary to the provisions of the law itself. Such regulations must, therefore, because of the latter portion of Section 1 of said Act and the provisions of Section 5, prohibit apprentices from working or being employed in a clinical laboratory unless there are on the active laboratory staff one or more licensed clinical laboratory technicians. They may not authorize more than two apprentices to work or be employed at the same time in the same laboratory.

The last portion of Section 5 permits the State Board of Health to provide for the issuance of temporary certificates as technologists and technicians, to expire at such time as shall be sufficient to determine the qualifications of said persons for permanent certification, notwithstanding the other provisions of the Act.

Section 6 of the said Act provides as follows:

> None of the provisions of this Act shall apply to a clinical laboratory now operated or hereafter to be operated by nonprofit hospitals, by nonprofit hospital associations, or by any nonprofit hospital department which is chiefly maintained by dues or contributions from employees of a common employer or of a group of affiliated employers, the services of which are principally confined to such employees, their dependents and members of their families and persons disabled in or by reason of the operations of the employer or group of employers, or by the State of California or the United States of America, or any department, official or agency thereof, or to nonprofit foundations engaged in research work.

It is definitely the view of this office that all of the attempted exemptions in said section contained are unconstitutional, with the exception of the exemptions as to clinical laboratories now operated or hereafter to be operated by the State of California, or by the United States of America, or any department, official or agency thereof.

We know of no sound reason which would warrant exempting clinical laboratories of nonprofit hospitals, nonprofit hospital associations, etc., from the operation of the Act, as the purpose of the Act is to protect the public from incompetent or inefficient technologists, technicians and apprentices, and such protection could not be secured by exempting nonprofit hospitals, nonprofit hospital associations, etc., from the provisions of the Act and permitting them to employ technologists, technicians, and apprentices having lesser qualifications.

On the other hand, it would appear that the legislature had the right to exempt the State of California and any department, official or agency thereof, from the operation of the Act, for ordinarily qualifying acts do not apply to the State unless the State is specifically included therein. Indeed, in the situation under consideration, the legislature has gone further than is customary and has specifically excluded the State and its departments, officials or agencies from the operative effect of the Act.

The exemption of the United States of America is likewise warranted in that the State of California has no authority to interfere with any federal agency acting within the scope of its federal authority. See *Ex parte Wilman,* 277 Fed. 819, and *Dobbins* vs. *Commissioner,* 16 Peters 435. Although these cases relate to taxation, the principle therein expressed is applicable to the exemption.

This does not necessarily mean that if the attempted exemptions are eliminated from the Act that the entire Act is invalid. Indeed, it is settled law that if an attempted exemption is invalid and separable, the balance of the Act stands. Particularly is this the case where the Act itself indicates that the legislature would have adopted the statute with the invalid exemption omitted.

The rule is set forth in the case of *Bacon Service Corporation* vs. *Huss*, 199 Cal. 21, and at page 39 the Court said:

Respondent relies on a statement in Lewis' Sutherland on Statutory Construction (Vol. 1, 2d ed., Sec. 306), where it is said: "If, by striking out a void exception, proviso or other restrictive clause, the remainder, by reason of its generality, will have a broader scope as to subject or territory, its operation is not in accord with the legislative intent, and the whole would be affected and made void by the invalidity of such part." The foregoing is unquestionably the rule except when a contrary legislative intent is ascertainable from the language of the statute or the general purposes or terms of the Act. But when it appears in the statute that it was the intent that the separable void portion should not destroy the whole the invalidity of the entire statute will not necessarily result, especially when it is determined, as here, that such was the intent, and that the remainder is a full and complete legislative enactment of the subject to which it relates.

To the same general effect see *State* vs. *Skinner* (Ala.), 101 So. 327.

Section 11 of the Act under consideration indicates a legislative intention to pass the Act should any section, subsection, subdivision, sentence, clause or phrase thereof, be declared unconstitutional. This leaves in force the balance of the Act, save as to the recognized exempted official agencies, and makes every technologist, technician, nonprofit hospital, nonprofit hospital association, etc., comply therewith.

Under Section 8, the State Board of Public Health is authorized to make rules and regulations providing for the reinstatement of technologists and technicians who fail to pay the fees required by the Board within sixty days after the commencement of the year.

Such section likewise provides for a revocation of certificate "for good cause after hearing on notice."

The portion of said section providing for the reinstatement of the certificate is constitutional and proper. That portion, however, providing for the revocation of license for good cause is void. In *Howitt* vs. *State Board of Medical Examiners*, 148 Cal. 590, the legislature undertook to permit the revocation of medical licensure by the Board of Medical Examiners in instances where the defendant made "grossly improper statements" in advertising a medical business. In discussing the language used in the statute, the Supreme Court of this State said:

Taking a given advertisement by a physician, the members of one board might conclude that it contained "grossly improper statements" while another board might reach an entirely opposite conclusion. One might conclude that the statement while "improper" was not "grossly" so. The advertisement of a physician which one board had determined did not come within the inhibition of the rule according to its judgment, a succeeding board might conclude it did. As the provision of the Act in question does not define what shall constitute "grossly improper statements" but leaves it to be determined according to the opinions of the particular members of the board who happened to constitute it when the matter of revoking a physician's license therefor is before them, it is obvious, if such a provision can be sustained that it could operate disastrously not only upon individual physicians, but upon physicians of a particular school.

The case in effect holds that a license may not be revoked where the grounds of revocation are left to the whim or caprice of an examining board without any standard for their guidance. The language in said case is applicable to the proviso of revocation in this Act "for good cause." What might constitute "good cause" as to one board might not constitute "good cause" as to another.

But this does not mean that the Act is unconstitutional because a license issued pursuant thereto may not be revoked or suspended pursuant to the Act in its present form. What has been stated hereinbefore with reference to *Bacon Service Corporation* vs. *Huss*, is applicable to the revocation language of the Act. The Act is, therefore, constitutional, but a license issued pursuant thereto may not be revoked. The advisability of an amendment to provide specific grounds for revocation is respectfully left to your discretion.

In conclusion, I particularly call to your attention the language of Section 10 of Chapter 804, which prohibits corporations and persons not possessing valid and unrevoked physicians' and surgeons' certificates from practicing medicine and surgery or from furnishing the service of physicians for the practice of medicine and surgery. This language indicates a specific legislative intent to prevent persons licensed as technologists or technicians from making diagnoses. Persons so licensed may make findings as to particular bacteria, germs or chemical substances present in given specimens or samples, but may not, under the law, state that the presence thereof constitutes the presence or absence of any particular malady or disease.

Very truly yours,

U. S. WEBB, *Attorney-General.*

(Signed) By Lionel Browne, *Deputy.*

Concerning a letter sent out from California*

(COPY)

EUGENE S. KILGORE, M.D.
ALSON R. KILGORE, M.D.
CURTIS E. SMITH, M.D.
490 POST STREET

San Francisco, November 11, 1937.

Dr. ————
Addressed
Dear Doctor:

Drs. Elliott C. Cutler, George Dock, Haven Emerson, Noble Wiley Jones and I join in inviting you to read the enclosed declaration in the hope that it expresses your feelings sufficiently well for you to want to sign and return one copy. As one of those invited to contribute to "American Medicine," the report of the American Foundation, you have undoubtedly been impressed by the multiplicity of views on various details covered in that report and by the publicity, the discussions, and the proposals which have followed its publication. We feel very strongly that from among these debated details there should be separated certain fundamentals on which most of us who were asked to contribute to "American Medicine" can agree, and that our agreement should be a matter of record at this time.

We have no immediate plans for publication; but unless you indicate the contrary we shall, of course, assume that you authorize the publication of your name with those of other signers if publication should later seem desirable.

Yours very truly,

(Signed) E. S. KILGORE, M.D.

* * *

(ENCLOSURE)

To Whom It May Interest:

In connection with certain recent proposals for increased governmental participation in matters pertaining to the prevention and cure of disease, we, the undersigned, declare the following to be our convictions on certain points which we believe are pertinent, important and fundamental:

1. That, while the health of the people is a concern of government, the intervention of government should consist chiefly in promoting the security of the people in the enjoyment of health opportunities, should involve the minimum complexity and size of the government agencies, and should preserve the maximum individual freedom and private initiative consistent with this aim;

2. That, in conformity with this principle,

(*a*) Government agencies for ensuring the sanitary safety of water, milk and other supplies, for quarantine, for enforcing honesty in labeling and advertising foods and drugs, for medical licensure and the like, should be maintained and in certain cases strengthened; and

(*b*) Recognizing the need of medical service distribution for low income groups, government should regard with sympathetic approval and, where necessary, aid by enabling legislation certain programs of insurance for medical care in sickness now functioning and others contemplated by many units of organized medicine in this country; and, mindful of the medical profession's ageless and fruitful tradition of self-sacrificing service and of the American people's stake in personal freedom, government should refrain from competing in or monopolizing the field of insurance medicine and from compulsion of physicians in offering or of the people in accepting such insurance;

3. That the preservation and advance of standards in medical education, medical practice and medical research

* Reference to this letter is made in the statement of the Board of Trustees of the American Medical Association, which appears in this issue, on page 366.

are more important for the future quality of medical service than the present problem of distribution, however urgent it may appear to be; and

4. That in conformity with this principle, since support by legislative appropriation inevitably favors political control and diminishes both the incentive and (through mounting taxation) the possibilities for private support, government should avoid any general extension of the policy of subsidizing medical institutions.

_____
(Name)

_____
(Address)

Date: _____

Concerning need of caution before signing letters: A communication from the executive officers of the California Medical Association.

CALIFORNIA MEDICAL ASSOCIATION
450 SUTTER STREET
San Francisco, November 12, 1937.
Special Bulletin

To State and County Society Officers:

A self-constituted and nonrepresentative group, designating themselves as a Committee of Physicians, with Dr. John P. Peters as secretary, is sending a printed statement of principles and proposals and a letter requesting State and County Society officers and County Societies to record endorsement of this movement that is not sanctioned or supported by the American Medical Association and its constituent State and County units.

It is recommended that you and your County Society defer action, ignore the request and await till the Council recommends policy and transmits advice and recommendations.

HOWARD MORROW, M.D.,
President.
MORTON R. GIBBONS, M.D.,
Chairman of the Council.
By F. C. WARNSHUIS, M.D.,
Secretary.

P. S. If you deem early action indicated, please *first* communicate with this office. F. C. W.

Concerning clinical laboratory standards.

San Francisco, October 28, 1937.

To the Editor:—I am sending you copy of a questionnaire I have recently sent out to the hospitals and laboratories in this city.

This will doubtless be of interest to you.

Department of Public Health,
City and County of San Francisco.

Sincerely,
J. C. GEIGER, M.D., *Director.*

* * *

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC HEALTH

October 21, 1937.

Gentlemen:

May we have an early answer to the following questions?

1. Are you at present prepared to identify and classify pneumococci in sputum by the Neufeld reaction? The Neufeld reaction, as you know, is a method for rapid determination of the invading type of pneumococcus, and in the presence of antiserum specific for the type, the capsule of the pneumococcus becomes swollen and definite in outline. If so,

2. Do you routinely make complete classification into Types I to XXXII; or

3. Is the typing partial, including only the types for which therapeutic serum is available?

4. Could you make complete classification according to standard technique of the Neufeld method and keep records of such work for periodic summarization to determine type incidence?

5. Are you interested in having your technicians avail themselves of an opportunity to gain further experience in the typing technique and classification of pneumococci by the Neufeld method?

In sending out the above questionnaire, which we hope will receive your immediate attention, we want it understood that we are not attempting to suggest laboratory methods; we are interested in securing information regarding type incidence and in knowing that, so far as is possible, the methods for typing are complete and standardized in all laboratories serving the doctors in this city and their patients.

We are informed that recently a physician secured a report from a laboratory that the sputum from his patient contained "No pneumococci in Types I to VIII and therefore there was no need to give serum." Complete identification of the pneumococci in this patient's sputum revealed large numbers of Type IV, for which therapeutic serum is available.

Sincerely,
J. C. GEIGER, M.D.,
Director of Public Health.

MEDICAL JURISPRUDENCE†

By HARTLEY F. PEART, ESQ.
San Francisco

California Statutory Definition of Practice of Medicine

The only statutory definition of the practice of medicine and surgery in this State is found in Section 2141 of the Business and Professions Code. This section provides that any person (and as here used, person includes artificial entities, such as corporations) "who practices or attempts to practice, or who advertises, or holds himself out as practicing, any system or mode of treating the sick or afflicted in this State, or who diagnoses, treats, operates for, or prescribes for any ailment, blemish, deformity, disease, disfigurement, disorder, injury, or other mental or physical condition of any person. . . ." is engaged in the practice of medicine and surgery. When a radiologist or roentgenologist takes a roentgenogram, studies it and submits his conclusion, is he practicing medicine within the foregoing statutory definition? From a common-sense viewpoint the answer necessarily would seem to be in the affirmative, but the vital question is what view has been taken by the courts when confronted with this problem.

Strange as it may seem, the assertion may safely be made that on the whole the common-sense viewpoint is usually the legal viewpoint. We may illustrate this statement by quoting from a leading case, *Runyan* vs. *Goodrum*, 228 S. W. 397, 13 A. L. R. 1402, on the subject of radiology. In the case just mentioned, the Court, after tracing the history of the development of the x-ray, stated: "We conclude, therefore, that because the science of roentgenology is so interrelated with the sciences of medicine and surgery in the diagnosis and treatment of human diseases, it should be classed in the same category with those sciences. And the x-ray specialist or roentgenologist must be placed in the same class with the physician and surgeon, because of the peculiar knowledge and technique that he must possess, and because in the practice of his profession such knowledge and technique are dedicated almost exclusively to the aid of the physician and surgeon in the diagnosis and treatment of diseases of the human body. The x-ray specialist or roentgenologist cannot be placed in the same class with the chauffeur or elevator operator, as contended by counsel for appellee, . . ."

The California courts when called upon to determine whether or not Section 2141 of the Business and Professions Code includes within its provisions the practice of roentgenology or radiology will no doubt reach a like conclusion.

† **Editor's Note.**—This department of CALIFORNIA AND WESTERN MEDICINE, containing copy submitted by Hartley F. Peart, Esq., will contain excerpts from and syllabi of recent decisions and analyses of legal points and procedures of interest to the profession.

Ownership of Roentgenogram Negatives or X-Ray Prints

Along with the problem of radiology's place in the field of medicine and surgery there is another legal question relating to the practice of radiology which may at any time become a matter of extreme importance to any radiologist. This question arises most often in court actions for alleged negligence and may be stated as follows: If a patient pays for the services of a radiologist, including therein the cost of films used, who is the owner of the negatives or prints resulting from the radiologist's use of the x-ray? There is one case upon this point: *McGarry* vs. *Mercier Company*, 262 N. W. 296, 100 A. L. R. 549. In that case the Supreme Court of Michigan came to the conclusion that x-ray negatives or prints *are owned by the radiologist*. The following is an interesting portion of the Court's opinion:

Further, plaintiff was fully justified in refusing to surrender possession of the x-ray negatives. In the absence of agreement to the contrary, such negatives are the property of the physician or surgeon who has made them incident to treating a patient. It is a matter of common knowledge that x-ray negatives are practically meaningless to the ordinary layman. But their retention by the physician or surgeon constitutes an important part of his clinical record in the particular case, and in the aggregate these negatives may embody and preserve much of value incident to a physician's or surgeon's experience. They are as much a part of the history of the case as any other case record made by a physician or surgeon. In a sense they differ little, if at all, from microscopic slides or tissue made in the course of diagnosis or treating a patient, but it would hardly be claimed that such slides were the property of the patient. Also, in the event of a malpractice suit against a physician or surgeon, the x-ray negatives which he has caused to be taken and preserved incident to treating the patient might often constitute the unimpeachable evidence which would fully justify the treatment of which the patient was complaining. In the absence of an agreement to the contrary, there is every good reason for holding that x-rays are the property of the physician or surgeon rather than of the patient or party who employed such physician or surgeon, notwithstanding the cost of taking the x-rays was charged to the patient or to the one who engaged the physician or surgeon as a part of the professional service rendered.

There is no decision in California on this point. However, it is quite likely that if the occasion arises the courts in this State will hold in accordance with the Michigan decision that x-ray prints or negatives are owned by the physician and not by the patient.

SPECIAL ARTICLES

THE FIGHT AGAINST TUBERCULOSIS*

One of the most powerful mass movements the world has ever known is the world-wide crusade against tuberculosis. Since 1904, when a Danish postal official conceived the idea of a Christmas Seal as a means of raising funds for the cure and prevention of tuberculosis, seals have been sold during the holiday season in over forty-five countries throughout the world.

The first seal to be sold in the United States was issued in Wilmington, Delaware, in 1907. The present seal is issued by the National Tuberculosis Association and sold by local city and county associations from Maine to Hawaii, and from Alaska to Florida. This year, a jolly town crier is depicted on the face of the United States Christmas Seal, bearing glad tidings of the nation-wide tuberculosis control program which has as its constant aim the further reduction in the annual death rate from tuberculosis, and the ultimate control of this disease.

In California the sixty-one local city and county tuberculosis associations have made great strides during the last year in uncovering early cases of tuberculosis in high school and college age groups. More than 100,000 students, or 10 per cent of the total enrollment in schools and colleges in this State were given tuberculin tests during the past year in case-finding surveys conducted by local associations.

One-third of all high school students reacted positively to the tests, an even larger percentage of college students, and from 20 to 25 per cent of grammar school children.

Roentenograms were taken of the positive reactors, and the findings discussed at medical meetings held to study the results of the surveys. The reports on both positive and negative reactors, as well as the x-ray films taken of the positives, were turned over to the family physicians named by the parents of the examined students. In most cases a public health nurse was employed to assist the physicians in bringing the student's entire family to his office for examination. Every effort was made to trace the sources of infection. Numerous unrecognized cases were uncovered through this procedure. The early treatment of these cases of active disease has not only saved many lives, but has aided greatly in preventing the further spread of infection.

Consultative clinics are another feature of the tuberculosis programs of the tuberculosis associations. These are teaching clinics, which have been held in some thirty counties throughout the State. They are held only upon the invitation of the county medical society. The cases studied in these consultative clinics are cases referred by local physicians for teaching purposes.

The theory behind the establishment of these consultative clinics was based on these facts, true in 1930:

That more than 85 per cent of tuberculosis patients in sanatoriums were moderately or far advanced.

That more than 75 per cent of these cases were moderately or far advanced before they came to the attention of a tuberculosis specialist.

Since 1930 much has been accomplished in the field of preventive control. The examination for tuberculosis of two hundred thousand young people in California during the past few years has brought to light many unrecognized cases of the disease, and has brought nearly as many parents and other relatives of these students into their doctors' offices for examination. The consultative clinics held in thirty counties have given practicing physicians in these regions assistance in the diagnosis of unusual cases and have helped to keep them informed of the latest advances in diagnosis and treatment.

The awakened interest of the general practitioner in tuberculosis is a great stride forward, since this disease will not be controlled until every general practitioner takes it upon himself to diagnose and treat tuberculosis.

* By W. F. Higby, Executive Secretary, California Tuberculosis Association, 45 Second Street, San Francisco.

TWO ARTICLES OF INTEREST IN "THE NATION" AND "THE AMERICAN MERCURY"

What One ("The Nation") Has to Say About the "Civil War" in the A. M. A., and What the Other ("The American Mercury") States About "The Nation"

From the publication office of *The Nation* a "marked copy" of the November issue was recently received by CALIFORNIA AND WESTERN MEDICINE. The item to which our attention was called was printed on page 519, and reads as follows:

Civil war has broken out at last in the American Medical Association—a very civil and respectable war, but for that reason perhaps the more formidable. A group of 430 doctors, many of them leading figures in the profession, has openly rebelled against the do-nothing group, headed by Doctor Fishbein, that controls the Association. They have published a manifesto much like one that was sidetracked in committee at the last American Medical Association convention. The patient public will welcome any open revolt against the reactionary medical machine. *The Nation* congratulates this democratic medical "four hundred" on furnishing the leadership which the profession so badly needs. At last the public can look to a responsible professional group for help in solving the problem of paying its doctor's and hospital bills. But it must be said that the manifesto seems designed to help the doctors even more than the public. While it declares the health of the people to be a national issue with which the federal, state, and local governments should be more actively concerned, and calls for a national health program, the principal objective seems to be to pay the doctors for their care of the "medically indigent." We have no objection to this worthy

aim—especially since it undermines the doctors' case for higher fees to those blessed with an income. But unless the four hundred will help us budget our health costs, they will forfeit the public hope and confidence which their action has aroused.

* * *

On the train, returning from the Chicago meeting of State Medical Association Secretaries and Editors, in scanning the pages of the December issue of *The American Mercury*, we chanced upon the item. "'The Nation' and 'New Republic': Our 'Liberal' Weeklies.'" For members who, like ourselves, see a copy of *The Nation* only from time to time, the following excerpts concerning that magazine, whose comment concerning the "Civil War in the A. M. A." appears above, may be of passing interest. Some brief quotations follow:

OUR "LIBERAL" WEEKLIES

By Harold Lord Varney

There is clucking and feather-pulling these days in the dovecotes of American Liberalism. Trotskyism belabors Stalinism in the quivering columns of the weeklies which are purportedly non-Communist. Heywood Broun, infuriated at a *Nation* which gives only 95 per cent allegiance to the C. I. O., deserts to a *New Republic* whose batting average is one hundred. Oswald Garrison Villard, increasingly at variance with his brethren since his mutiny on the Roosevelt court-packing plan, is dropped from the *Nation's* editorial board to the obscurity of a column on the magazine which his fortune created. Sulphurous recriminations choke the atmosphere. The Liberal "United Front" is disintegrating before our eyes.

But the wonder is that the Liberal crack-up did not come long ago. . . .

Nowhere has this stultification been more painfully apparent in recent years than in the two recognized Liberal weeklies—the *New Republic* and the *Nation*. Vying with each other for the support of the Left intelligentsia, they have often seemed to be in competition for the dubious honor of the first arrival in Moscow. It is possible to trace the retreating steps of American Liberalism through the years of the post-war period in the reddening policies of these two publications. Their role has been central in all the backings and fillings of the Left intelligentsia. Their columns have mirrored the metamorphosis which has transformed the erstwhile disciples of Wilson and Jefferson into incense-bearers at the shrine of Marx. A brief glance at their careers will throw a revealing light upon the causes of their present futility. . . .

But with the coming of the Depression, Villard found himself facing the same dilemma that was to drive Bliven and Soule into the outright revolutionary position. His once Liberal public was veering sharply to the Left. Technocracy, social planning, and all the crackpot variations of collectivism were haunting the Liberal mind. Like its rival, the *Nation* soon tacked to the new breeze. There were frequent upsets in the editorial family. . . .

Thus, by separate voyagings, the *New Republic* and the *Nation* have now arrived at a common revolutionary harbor. Divergences of editorial policy there have been, of course, over the years. But it is significant that such differences have been rather of manner and strategy than of social direction. Today, for all practical purposes, both publications are well within the Marxian penumbra. Although the editors angrily deny the imputation, they are pursuing policies which parallel, with almost uncanny fidelity, the official Stalin Party-Line.

Let us glance at a few of their present enthusiasms and apprehensions in the light of their professed Liberalism. We will find that the two magazines have stood as one in the face of every American controversial issue of the last twelve-month, with the single exception of the issue of neutrality. It is ironic to note that in each situation their reaction has been anti-Liberal. . . .

Furthermore, it is probably accurate to say that, today, the *New Republic* and the *Nation* are the most effective amateur propaganda adjuncts to the American Communist movement. For the once-Liberal weeklies are, in a sense, the bridge between Communism and the unconvinced intelligentsia. Their 75,000 subscribers, by a process of natural selection, are vocational molders of national opinion. They are teachers, writers, clergymen, professional men and women, social workers—the picked middlemen of American intellectual life. . . .

* * *

The above may also be of interest, in connection with editorial, press dispatch, and other comment in this issue of CALIFORNIA AND WESTERN MEDICINE.

UNITED STATES EXPERIMENT IN STATE MEDICINE BRINGS PROTESTS

A major experiment in socialized medicine, backed by federal influence and public funds, was launched in Washington, D. C., on November 8.

The local medical profession plans to contest its legality and if possible halt the experiment before it becomes a model for the country. Supporters are equally determined, however, and have found a receptive atmosphere for their plans among the many thousands of moderately paid government clerks who make up a significant share of this city's population.

The experiment is in the form of a coöperative clinic for employees of the Federal Home Owners' Loan Corporation and affiliated agencies. The Home Loan Bank Board has itself pledged a direct contribution of $40,000—half to be paid this year and half next year—on the theory that the expenditure is an "investment" in the improved health and, therefore, the efficiency of its staff. The Board's contribution is an outright gift, not a loan.

TWO THOUSAND PERSONS ELIGIBLE

Approximately two thousand persons are expected to be eligible to participate in the coöperative clinic. The group of agencies involved includes, in addition to the Home Loan Board and Corporation, the Federal Home Loan Bank System, the Home Loan Insurance Corporation, and the federal savings and loan section of the Board.

All employees of these agencies may obtain the free use of the services of the clinic at a cost of $2.20 a month per individual employee or $3.30 a month for employee and family. The system is on a voluntary basis, but a sufficient proportion of the personnel of the agencies has signed up in advance to make the experiment financially possible, it is indicated.

The clinic is headed by Dr. Henry Rolf Brown, the retiring chief of the tuberculosis division of the Veterans' Administration, who sees in a coöperative clinic for a group of government employees a system not fundamentally different from medical services provided in the Army and Navy or for veterans.

MEDICAL ASSOCIATION OPPOSED

The District of Columbia Medical Association, however, takes a sharply divergent view of the experiment. Behind closed doors the local doctors considered what to them is a very grave threat to the independence of the medical profession, and weighed plans for a legal fight to stamp out the HOLC coöperative clinic. No decision on the best course of action has yet been announced, but the implication is that the association will first attempt to persuade local public officials that the scheme is illegal. If this fails, it is suggested that court action be taken.

The doctors believe they have a precedent in the recent success of the local legal profession in stopping the practice of banks performing legal services for their clients. The corporation counsel ruled that no corporation can practice law. All banks are understood to have since abandoned the practice, or arranged to do so at an early date. The doctors believe that if it is illegal for a corporation to practice law, it should prove equally illegal for a corporation to practice medicine. There is a question, however, as to the analogy between a banking corporation directly providing legal service and a coöperative organization which is aided by the contribution of a corporation, but not directly related to it.

EXPERIMENT STUDIED

The outcome of the HOLC clinic experiment is being watched closely from all sides. It is considered extremely likely that if this experiment establishes both its legal validity and its ability to operate profitably it will be emulated by other agencies of the Federal Government. The semi-independent agencies such as the HOLC would presumably come first. This type of agency is able to dispose of its funds for the encouragement of such a clinic on its own initiative since it is legally a private corporation. It is backed by Congress, and Treasury funds, but handles its own business independently.

Regular government departments could not contribute funds to such an organization among their employees with-

out special act of Congress. However, there is nothing to prevent employees of one of the big regular departments from organizing a coöperative clinic on their own responsibility if they can manage to finance it without help. The concern of the medical profession is that if the system once gets established it will sweep through the entire government and soon obtain from Congress appropriations for aiding clinics for all government employees.—*Christian Science Monitor*, November 8, 1937.

TUBERCULOSIS: A TWO-BILLION-DOLLAR LEAK*

The Christmas Seals

Tuberculosis is a costly disease, costly to the individual, costly to his family, costly to industry, costly to the community. All of us, taxpayers and rent payers, must pay for sickness, whether we are ill or well. For the tuberculosis patient there are such tangible expenditures as loss of wages and income, doctor and hospital bills, besides the cost that comes from the danger of spreading this disease to his friends and family.

At this very moment there are no less than 500,000 active cases of tuberculosis in the United States. This year, 1937, about 70,000 persons have died of tuberculosis, most of them young adults, for this is a young person's disease. If you will multiply 500,000 living cases by $4,000, which is the carefully computed cost of a tuberculosis case to home, industry, and community, you will get the stupendous total of two billion dollars. That is what these 500,000 cases of tuberculosis will cost you and everyone who lives in the United States.

But most of that cost is unnecessary, since tuberculosis is a disease that can be prevented. In fact, it can be eradicated. That two billion dollars is like a leak in a great dam or dike, where the water that should be saved for productive uses, runs away needlessly.

Why not stop this leak? We know how to do it; we have been able to reduce the havoc of tuberculosis from 150,000 deaths some thirty years ago to about 70,000 at the present time. Three decades ago 175 persons out of every 100,000 then living died annually from tuberculosis, while today the corresponding rate is about fifty-five.

We have learned from experience how to control tuberculosis. We know that hospitals for treatment of the disease and for health protection are our main line of defense against the disease. We have proved that clinics, doctors, tuberculin testing and x-raying of high school and college children and young adults, together with competent public health nursing, are essential to find tuberculosis in its early curable form and to prevent its spread in home, school, and industry. We know that health education in the school and in the population at large will teach people how to avoid tuberculosis, and, above all, we know that organization of community resources and of focused public opinion on the problem of tuberculosis are mighty aids in getting rid of this white plague.

Why, then, should we allow a leak of two billion dollars to continue? It is simply because of indifference on the part of the public. Some people know how to prevent tuberculosis, but everybody should know how to prevent it. The tuberculosis associations of the United States, local, state, and national, have been the leaders in the fight against tuberculosis. Their biggest task is now before them. With the distinct gains that have been made in the last thirty years, many people think that tuberculosis is conquered, but this is far from being the case. Tuberculosis still is Public Enemy No. 1 among the young people of this nation. The job of conquering tuberculosis can be completed, but it needs the support of every man, woman, and child in the country.

The appeal of the Christmas Seal is one way in which everybody can help to fight tuberculosis. But it is only one way. Your money is greatly needed to provide the sinews of war to the fighters who are leading the attack on this disease. But more than your financial support is necessary, your moral support and your enthusiastic coöperation are also needed. Enlist today in this life-saving campaign.

* By Philip P. Jacobs, Ph.D., Director of Publications and Extension, National Tuberculosis Association, 50 West Fiftieth Street, New York, N. Y.

NONPROFIT GROUP HOSPITALIZATION PLAN ORGANIZED IN SOUTHERN CALIFORNIA*

Incorporation of the "Associated Hospital Service of Southern California"

A new nonprofit corporation, organized under the law enacted at the last legislature, namely, Assembly Bill 1132,† was organized Monday, November 15, in Los Angeles. This nonprofit corporation covers all Southern California from Santa Barbara to San Diego. The name of the new corporation will be the "Associated Hospital Service of Southern California," patterned after the similar corporation in New York City of the same name.

It contemplates enlistment of subscribers at approximately three cents per day, for which they will secure free hospitalization at any of its hospitals, each certified by the State Board of Public Health.

SUBSCRIBERS WILL BE ACCEPTED JANUARY 15, 1938

The new Board of Directors stated that they plan to accept subscribers on January 15, 1938. The following hospitals in Southern California, allied with the "Associated Hospital Service of Southern California," have now been inspected and approved by the State Board of Public Health:

Alhambra—Alhambra Hospital.

Compton—Las Campanas Hospital.

Glendale—Glendale Sanitarium and Hospital; Physicians and Surgeons' Hospital.

Los Angeles—The California Hospital; Cedars of Lebanon Hospital; Hollywood Hospital; Hospital of Good Samaritan; Methodist Hospital; Santa Fe Hospital; and White Memorial Hospital.

Long Beach—Long Beach Community Hospital; Seaside Hospital.

La Jolla—Scripp's Memorial Hospital.

Loma Linda—Loma Linda Sanitarium and Hospital.

Orange—St. Joseph's Hospital.

Oxnard—St. John's Hospital.

Pasadena—Huntington Memorial Hospital; St. Luke's Hospital.

Riverside—Riverside Community Hospital.

Santa Barbara—Santa Barbara Cottage Hospital.

Santa Monica—Santa Monica Hospital.

Torrance—Torrance Memorial Hospital.

San Pedro—San Pedro General Hospital.

Ventura—Foster Memorial Hospital.

A number of other hospitals will participate in the plan, but have not had time to complete arrangements for inspection and approval by the State Board of Public Health.

INCORPORATING BOARD OF DIRECTORS ELECTED

The following were elected to the Board of Directors at the meeting on November 15: Right Reverend Monsignor T. J. O'Dwyer, Edward M. Pallette, M.D., Miss A. G. Henninger, Mr. R. E. Heerman, Philip J. Edson, M.D., Roland Maxwell, Miss Anna K. Vogler, Glenn E. Myers, M.D., William H. Kiger, M.D., Mr. Leonard K. Brown, George H. Kress, M.D., and J. M. Burlew, M.D.

PROTECTED SERVICE TO THE PUBLIC

The objective of this nonprofit community service is to enable groups of people with moderate incomes to pool a small amount regularly so that they may collectively reimburse hospitals for services rendered to their individual members. The plan enables the subscriber to receive adequate hospital care when he needs it, without the usual burden of expense. If a person could know in advance when he would need hospital care, he could save to meet the expense, but illness and injury come unexpectedly. Paying an unforeseen hospital bill, individually, may be a real hardship.

† See CALIFORNIA AND WESTERN MEDICINE, April, 1937, on page 219.

* Press release item.

Through this new organization for Southern California, the public is protected by law which was enacted at the last legislature, placing this service under high standards of regulation. The hospitals must be licensed, inspected, and certified annually by the Board of Public Health. The Insurance Commissioner must license and regulate the corporation as a nonprofit service.

DATE FOR FIRST SUBSCRIBERS

The date for first subscribers has been set for January 15, 1938. At that time the Directors hope to have complete plans worked out with the Insurance Commissioner of the State of California.

HOW THE PLAN WORKS

The plan will be established on the coöperative principle. A fund is created from the regular subscription charges by subscribers and is used for the purpose of paying their hospital bills. National statistics and experience show that a fund can be created that will be sufficient to pay for the cost of the hospital service needed by the subscribers. Experience shows that enrollment of subscribers singly, without physical examination, is, in effect, contrary to that principle, accordingly. Group enrollment is necessary.

YOUR LOCAL HOSPITAL WILL GIVE YOU INFORMATION

Employed persons and their families can secure information by keeping contact with their local hospital.

FEDERAL FOOD AND DRUG LAWS

In this issue, on page 465, under the caption "Press Propaganda on Medical Preparations," comment is made concerning the recent deaths from elixir sulfanilamide. As this number of the Official Journal goes to press, the subject of Federal Food and Drug Laws has come to the front in press dispatches from Washington. Because those dispatches take up in detail, some of the reasons why revisions of the Federal Food and Drug Laws are needed, they are given space below. It is to be hoped that the component county societies of the California Medical Association will send appropriate resolutions approving revisions to each of the Federal Senators and Representatives from California.*

Tighter Drug Curbs Urged

Seventy-three Deaths From Elixir Cited in Board's Report

Washington, November 25. (Associated Press).—The Food and Drug Administration, declaring that seventy-three persons are known to have died as a result of taking the drug elixir sulfanilamide, urged Congress today to enact stronger drug-control legislation.

The administration, responding to a request from the Senate and House for a report on the deaths, recommended that Congress:

1. License control of new drugs to make sure that they will not be generally distributed until experimental and elinical tests have shown them to be safe for use.
2. Prohibit drugs dangerous to health when administered in accordanee with the manufacturer's directions for use.
3. Require drug labels to bear appropriate directions for use and warnings against probable misuse.
4. Prohibit secret remedies by requiring that labels disclose fully their composition.

All Accounted For

The administration said that the entire amount of 240 gallons of the elixir sulfanilamide manufactured and sold by the S. E. Massengill Company of Bristol, Tenn., had been accounted for by government representatives working in cooperation with the manufacturer and druggists and physicians who partieipated in its distribution.

The administration said that besides the seventy-three deaths cited, twenty other persons who took the medicine died, but that it has not been established that the drug was exclusively responsible for these fatalities.

Solvent Blamed

Describing sulfanilamide as a "valuable drug" and not responsible for the deaths, the report attributed the fatalities to diethylene glycol, which was used as a solvent in making the elixir.

"The fatal elixir was rushed onto the market without adequate test to determine whether or not diethylene glycol may be safely used as a solvent for sulfanilamide, despite previously published reports in scientific literature showing that diethylene glycol might be dangerous when taken internally," the report said.

It stated, however, that existing food and drug laws do not require that drugs be tested before being placed on sale.

Reducer Banned

The report also stated:

"Records of the Postoffice Department show that in 1929, H. C. Watkins, the Massengill Company chemist who made the elixir, was distributing a medicine represented to reduce weight, to bring about 'perfect slenderness' and to cause the body to acquire 'a trim, youthful, athletic look.'

"On October 30, 1929, the Watkins laboratories and others were cited by the solicitor of the Postoffice Department to show cause why a fraud order should not be issued. Mr. H. C. Watkins filed a stipulation with the department, agreeing that the sale of the product would be abandoned and not resumed at any future time." (Los Angeles *Times*, Friday, November 26, 1937.)

Teeth in Drug Act Asked; Seventy-Three Deaths Cited*

Secretary Wallace Recommends Safeguards to Congress as Result of Elixir Fatalities

Washington, November 25.—Dramatically picturing the pain-wracked suffering of seventy-three persons who died after taking elixir sulfanilamide, Secretary of Agriculture Wallace tonight sent a report to the Senate and House demanding more "teeth" in the Federal Food and Drug Laws.

Wallace declared present laws give the Government no means of protecting the public from dangerous drugs such as that which, during September and October, led to widespread deaths "as a direct result of taking the drug known as 'elixir sulfanilamide.' "

Twenty Other Deaths

Twenty other persons who took the elixir died, Wallace's report said, but the Administration has not yet established whether the drug was exclusively responsible.

"The victims of the elixir were ill from seven to twenty-one days," said the report, made in response to resolutions passed by both House and Senate. "They suffered intense pain. All exhibited very much the same symptoms."

Asks Safeguards

To remedy the deficiencies of the law, Wallace urged Congress to enact laws to provide "at least" for:

1. License control of new drugs to insure that they will not be generally distributed until experimental and clinical tests have shown them to be safe for use.
2. Prohibition of drugs which are dangerous to health when administered in accordance with the manufacturer's direction for use. A number of dangerous drugs are now on the market against which not even a trivial charge of violation can be made.

Label Requirements

3. Requirements that drug labels bear appropriate directions for use and warnings against probable misuse.
4. Prohibition of secret remedies by requiring that labels disclose fully composition of drugs.

Wallace asked Congress to provide for a "board of experts" to advise the Secretary of Agriculture on the safety of new drugs. Such a board, backed by the laws sought, he declared, would have prevented the elixir deaths, as well as possibly many others.

Criminal Action Looms

The Food and Drugs Administration, Wallace informed Congress, is preparing citations against the S. E. Massengill Company of Bristol, Tenn., to show cause why the "elixir" death cases should not be referred to the Federal courts for criminal prosecution. (Los Angeles *Examiner*, Friday, November 26, 1937.)

* By L. W. Meredith, Staff Correspondent, International News Service.

Results of Irradiation in Cancer of Os Uteri.—Den Hoed concludes that the present technique of irradiation produces cure in from 50 to 60 per cent of the operable cases and of the cases that are on the borderline of operability and in about 20 per cent of the inoperable cases. Further improvement of the results may be expected chiefly from an earlier onset of the treatment; that is, during a more favorable stage of the cancer. This implies that an early diagnosis is important. It is suggested that early diagnosis will be promoted by the regular examination of the apparently healthy. Moreover, the great technical improvements obtained during recent years in the field of radiology suggest that the number of cures can be increased also by further refinements of the therapeutic methods.—*Nederlandsch Tijdschrift voor Geneeskunde.*

* For roster of Congressmen, write to the Central Office of the California Medical Association.

TWENTY-FIVE YEARS AGO†

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. X, No. 12, December, 1912

From Some Editorial Notes:

Tenth Volume.—With this issue the tenth volume of your *Journal* is closed and another year ended. Whether the net result of the year of work and of publication be good or bad, it is finished and put away with the things that have been. The *Journal,* this last year, has printed more matter, more original papers and, we think, better papers than in any previous year. As nearly everything that we published is produced by California physicians, the *Journal,* to a large extent, reflects the productivity and the value of the product of California doctors. The better your work and the more carefully you prepare your papers the better will be the *Journal* and the more credit will it reflect upon the medical profession of California and its state organization. . . .

* * *

Notable Meeting.—A meeting of the secretaries of state medical organizations was held in Chicago, October 23 and 24, 1912, that was in many ways the most remarkable medical meeting ever held. . . .

* * *

Medical Defense.—Nearly every state medical organization that has a medical defense feature has noted, in the last year or year and a half, a marked increase in the number of alleged malpractice suits that are being brought against physicians. . . .

The same thing is as true in California as it is in New York or Kentucky; malpractice suits are rapidly increasing in number. Is it another expression of the feeling of antagonism to all things medical? Is it another evidence of the general feeling of unrest, of rebellion against any sort of control or supervision, and especially intellectual or scientific control? It would seem so. . . .

* * *

Nobel Prize.—It is a pleasure to note that the Nobel Prize, amounting to some $39,000, has recently been awarded to Dr. Alexis Carrel of the Rockefeller Institute for his remarkable work in connection with the suture of vessels and the transplantation of organs and tissue. . . .

From an Article on "The Relation of Pain, Especially Backache, to Joint Strain, or the Relation of Pain to Mechanics" by S. J. Hunkin, M.D., San Francisco.—Allow me to prologue and say that it is my conviction that 33⅓ per cent of all pain coming to suffering humanity: of all pain that human kind is heir to, is directly mechanical: that is, it is due to gross mechanical causes—directly and evidently so, and can be relieved, permanently and directly, only by mechanical procedures. Also when the problem is not thus approached, the patient has to be "doped," while nature gropes after the mechanical efficiency, and seeks the repose which comes after it is found. The problem is voiced always, and whenever the patient ceaselessly moans and tosses, and complains that he cannot find a comfortable position: and comparative relief from mechanical stress is secured, whenever he asks to be left alone, and deprecates or refuses to be disturbed or moved. . . .

From an Article on "Chilblains" by Ernest Dwight Chipman, M.D., San Francisco.—The chilblain is a seasonal dermatosis. Quite as much as winter itch or recurring summer eruption, it is limited by the calendar. It comes with the earliest frosts of autumn and fades away with the

(Continued in Front Advertising Section, Page 22)

†This column strives to mirror the work and aims of colleagues who bore the brunt of Association work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By Charles B. Pinkham, M.D.
Secretary-Treasurer

Board Proceedings

At the annual meeting of the Board of Medical Examiners held at the State Capitol, Sacramento, October 18 to 21, the following officers of the Board of Medical Examiners were reëlected: William R. Molony, Sr., M.D., Los Angeles, president; Clark L. Abbott, M.D., Oakland, vice-president; Charles B. Pinkham, M.D., San Francisco, secretary-treasurer.

Additional rules and regulations regarding graduates of foreign medical schools were adopted, including the approval of printed forms to be made out and filed by such graduates, as well as by hospitals where graduates of foreign medical schools complete the internship required under the Business and Professions Code.

At this meeting, the following changes in licensure status were made:

Harry Asher, licensed chiropodist, San Francisco, license revoked on October 19, based on illegal prescribing of narcotics.

Ralph A. Behrend, M.D., Los Angeles, license revoked on October 19, based on adjudication of insanity.

Samuel D. Burgeson, Jr., M.D., Los Angeles, alleged illegal operation, license revoked on October 19.

Frederick N. Folsom, M.D., Santa Rosa, narcotic conviction, license revoked on October 19.

Claude C. Long, M.D., San Francisco, recently convicted in San Francisco of illegal operation, license revoked on October 19.

Thomas O. Luckett, M.D., El Centro, recently sentenced to San Quentin Prison, following his conviction of an illegal operation, license revoked on October 19.

William F. Meyer, M.D., San Diego, license revoked on October 19, based on adjudication of insanity.

Harold E. Morrison, M.D., formerly of San Luis Obispo, now of Reno, Nevada, license revoked on October 19, based on adjudication of insanity.

E. Blanche Ramer, M.D., San Diego, license revoked on October 20, based on charges of alleged illegal operation.

Eugene Settles, M.D., San Diego, license revoked on October 19, based on alleged narcotic addiction.

Hugo Wahl, M.D., San Francisco, found guilty of a charge of aiding and abetting an unlicensed practitioner, was on October 21 placed on probation for a period of three years.

The license of Leonard R. Chapman, M.D., was revoked on October, 1935, was restored on October, 1937, and he was placed on probation for a period of three years.

News

"Headed by Dr. Leo Eloesser, noted San Francisco physician, the staff of a mobile hospital unit, with four American doctors, today sailed from New York aboard the *Queen Mary* for Spain. . . . Accompanying Doctor Eloesser were Dr. Edward K. Barsky, New York, head of nine American hospitals in the Spanish war area, Dr. Edwin Weisfield, Seattle, and Dr. Charlton Purviance, Fairfield, California." (San Francisco *News,* November 4, 1937.)

"Deeply stirred by the many deaths caused by the distribution of an elixir of sulfanilamide in the United States, the California League of Women Voters is issuing a call to its local leagues to urge on their representatives in Congress enactment of a stronger Federal Food and Drugs Act that would avert such tragedies. 'However innocent the producers and distributors, this experience tragically points to the need for Federal legislation insuring a governmental check on such products as the elixir of sulfanilamide before they are distributed to a helpless public,' said Mrs. Voss.

(Continued in Front Advertising Section, Page 22)

† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.

BAXTER'S ARE THE PIONEER SOLUTIONS

In every page of history, in every conquest of science or geography or medicine there will be found a pioneer.

A pioneer, with imagination to conceive—with determination to do—with ability to execute—with vision to plan.

Baxter is the pioneer in the development of commercial ready-to-use solutions. Baxter developed intravenous solutions to a high point of perfection, then developed the incomparable Vacoliter — Baxter's dispensing container for intravenous solutions.

In recognition of Baxter's pioneering, the hospitals of America have, by their voluntary acceptance of the Baxter ideal, placed and continuously maintained Baxter in a position of pre-eminence in the field of commercial ready-to-use intravenous solutions.

It costs your hospital no more to use Baxter's Intravenous Solutions in Vacoliters. In fact, we can show you how you may use Baxter's, the pioneer solutions, at even less than your usual cost. Write for information about the Baxter plan.

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Research and Production Laboratories
Glendale, California

YOU DESERVE IT!

That's Why We Are Dedicating This Space To

AN EXPRESSION OF APPRECIATION

to the Members of the Medical Profession who so unselfishly and untiringly devote their lives to the health and happiness of humanity.

Your Bureau should be and is grateful for the privilege of helping, in some small measure at least, by solving some of your problems; grateful for the support and coöperation received in our efforts to be helpful; grateful for the assurance of even greater support and coöperation in the future; and grateful for this opportunity of expressing appreciation and wishing each of you

A Merry Christmas and A Happy New Year!

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THE DOCTORS BUSINESS BUREAU
ESTABLISHED 1916

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LOS ANGELES

OAKLAND LONG BEACH SALT LAKE CITY

Humane Anniversary.—In the year 1822 a high-minded little group of men led by an M. P. from Galway, Richard ("Humanity") Martin, gathered at Old Slaughter's Coffee House in London, and formed the first Society for the Prevention of Cruelty to Animals. In the same year they induced Parliament to pass a bill to punish persons who "wantonly and cruelly" beat or ill-treated horses, mares, geldings, mules, asses, oxen, cows, heifers, steers, sheep.

In the year 1864 one Henry Bergh, son of a wealthy New York shipbuilder, returned to the United States from a consulship in St. Petersburg thoroughly disgusted with the way Russians abused animals, thoroughly determined that there should be no such abuse in the United States. Taking his inspiration from "Humanity" Martin, he lined up John Jacob Astor, Peter Cooper, other prominent New Yorkers, in 1866 founded in New York the first American Society for the Prevention of Cruelty to Animals. From the New York Legislature he secured a charter granting its officers the power of arrest and the privilege of licensing dogs, in return for which he proposed to keep the streets free of strays.

Until his death in 1888 Henry Bergh stumped the United States lecturing on humanitarianism, urging others to set up their own local organizations. In 1877 John G. Shortall, President of the Illinois Humane Society, called a meeting in Cleveland to coördinate those organizations, formed the American Humane Association. Recently the American Humane Society held its fiftieth anniversary meeting in Milwaukee, Wisconsin, and did honor to Henry Bergh.

In its early days, the American Society for the Prevention of Cruelty to Animals devoted itself to such matters as the ruthless overcrowding of calves and cows in shipment, the plucking of live fowl, the mixing of marble dust in horse and cattle food as filler. Nowadays such societies are busy with such diverse matters as inspecting poultry markets, removing injured animals in ambulances, extricating stranded cats from trees.

Henry Bergh's New York American Society for the Prevention of Cruelty to Animals was the father of all United States be-kind-to-animals organizations, but it is now brother to nearly five hundred of them, of which the American Humane Association is general supervisor and propaganda force.

Friendly toward the American Society for the Prevention of Cruelty to Animals and the American Humane Association, although the friendship is not entirely reciprocated, are numerous national and local antivivisectionist societies which devote their energies to attacking scientists who use animals for experiments. To them antitoxins and serums produced by infecting animals with disease are anathema. Most prolific distributor of antivivisectionist literature is the Vivisection Investigation League, headed by 81-year-old Sue M. Farrell, who learned her humanitarianism direct from agnostic Robert Ingersoll; antivivisectionists also include such unusual celebrities as Fannie Hurst, George Arliss, Ellen Glasgow, Mahatma Gandhi, Irene Castle McLaughlin, but their societies were not officially represented in Milwaukee.

Climax of the Milwaukee meeting was the rededication of the only existing statue of Henry Bergh, first dedicated in 1891 by the Wisconsin Humane Society, still standing in Milwaukee's City Hall Square. President of the Association since 1927 has been Rotarian-Boy Scout Leader Sydney Coleman, fifty-one, executive vice-president of the American Society for the Prevention of Cruelty to Animals. Recently, under his aegis, the most spectacular event was the annual humane-trap contest, of which the winner, D. Ralph Knapp of Plattsburg, New York, was awarded $100 for the second successive year for a painless chain trap.—*Time.*

County Medical Societies and Group Hospitalization*.—The House of Delegates at the Atlantic City session this year adopted the following principles, "in the interest of fairness, efficiency, and greater security," to be observed in any plan of hospital insurance:

* A statement prepared by the American Medical Association Bureau of Medical Economics.

FRANKLIN
HOSPITAL

Limited General Hospital with accommodations for 220 patients located in a seven-acre park. Fourteenth and Noe Streets, San Francisco.

Fully approved by the American College of Surgeons and the American Medical Association for Interne Training, and maintaining an Accredited School of Nursing.

Founded 1852

WALTER V. ROHLFFS, Ph. D.
President

LeROY BROOKS, M. D.
Chief of Staff

FRANK SCHMIDT
Superintendent

1. The plan of organization should conform to state statutes and case law. The majority of the governing body of the hospital insurance plan should be chosen from among members of official hospital groups and members of medical societies. Great care should be taken to assure the non-profit character of these new ventures.

2. The plan should include all reputable hospitals. The qualifications of the participating hospitals should be closely supervised. Member hospitals should be limited to those on the Hospital Register of the American Medical Association or to those approved by the state departments of public health or other state agencies in those states in which there is approval, registration or licensing of hospitals.

3. The medical profession should have a voice in the organization and administration of the plan. Since hospitals were founded to serve as facilitating means to the practice of medicine, the medical profession must concern itself intimately with plans likely to affect the relations of hospitals to physicians.

4. The subscriber's contract should exclude all medical services—contract provisions should be limited exclusively to hospital facilities. If hospital service is limited to include only hospital room accommodations such as bed, board, operating room, medicines, surgical dressings and general nursing care, the distinction between hospital service and medical service will be clear.

5. The plan should be operated on an insurance accounting basis with due consideration for earned and unearned premiums, administrative costs and reserves for contingencies and unanticipated losses. Supervision by state insurance departments has been advantageous for both the buyer and the seller of insurance contracts. Laws permitting the formation of hospital service corporations should not remove the benefits of such supervision or violate the principles enumerated.

6. There should be an upper income limit for subscribers. If group hospitalization plans are designed to aid persons with limited means to secure hospital services, they should render such service at less than regular rates. If no consideration in rates is made for persons with limited means, group hospitalization plans lose their altruistic purpose and there may be little justification for an income limit.

7. There should be no commercial or high pressure salesmanship or exorbitant or misleading advertising to secure subscribers. Such tactics are contrary to medical and hospital ethics and are against sound public policy.

8. There should be no diversion of funds to individuals or corporations seeking to secure subscribers for a profit. The moment hospitals lose their traditional character as institutions of charity and humanitarianism, the entire voluntary hospital system will break down.

9. Group hospitalization plans should not be utilized primarily or chiefly as a means to increase bed occupancy or to liquidate hospital indebtedness. Such plans, if they

(Continued on Next Page)

For Acidity and Allied Conditions, we suggest

ADAMS SPRINGS MINERAL WATER

● MANY physicians recommend the water in conjunction with the treatment of stomach, liver and kidney trouble.

ADAMS MINERAL SPRINGS is one of the seven known iron and maganese bi-carbonate springs in the world, and the only one in Western America.

It is not a cure-all, but it overcomes acid excesses in the body, and is a very mild but wonderfully effective eliminator. The bowels function without spasm, the kidney output is greatly increased, and there is *marked* drainage of bile from the gall bladder and liver.

There is also some constitutional upset for a few days, particularly in gall bladder cases. But this is soon over and your patient begins to show improvement and is now in condition to profit by any medication you may prescribe. If the case is an operative one, you have improved your patient and made of him a better risk.

We will be pleased to cooperate in any way whatever, and samples of water are yours for the asking.

A Natural Mineral Water
SHOWING MAIN CONSTITUENTS
By PROF. SYDNEY A. TIBBETTS, *Berkeley*

MANGANESE	1.3 parts per million
IRON	12.5 parts per million
CALCIUM	173.3 parts per million
MAGNESIA	339.3 parts per million
SODIUM	365.0 parts per million
SILICA	93.0 parts per million
CHLORINE	38.3 parts per million
SULPHATE	16.1 parts per million
NITRATE	0 parts per million
PHOSPHATE	.7 parts per million
CARBONATE	1551.4 parts per million
TOTAL	2591.4 parts per million

For further information write W. R. PRATHER, D. D. S.
ADAMS SPRINGS, LAKE COUNTY, CALIFORNIA

Steam heated hotel, open all year around.

3000 feet up in the Lake County Pines.

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The Oaks Sanitarium

For the Scientific Treatment of Tuberculosis and other Chronic Chest Diseases

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THE LONDON LANCET says: "There are two spots in the world with the most equable climate. One is Assuan, Egypt, the other is a little town in the foothills of the Santa Cruz Mountains in California, called Los Gatos."

Rates, Information and Booklet on Request

St. Mary's Hospital

2200 Hayes Street

SAN FRANCISCO, CALIFORNIA

Conducted by Sisters of Mercy

Accredited by the American Medical Association and Approved by the American College of Surgeons. Open to all members of the California Medical Association. Accredited School of Nursing and Out-Patient Department.

(Continued from Preceding Page)

are necessary, should place emphasis on public welfare and not on hospital finances.

10. Group hospitalization plans should not be considered a panacea for the economic ills of hospitals. They can serve only a small portion of those persons needing hospital services. Hospitals must continue to develop efficient methods of administration and service independent of any insurance method of selling their accommodations.

These resolutions do not concern any attempt to establish the necessity for group hospitalization insurance. The responsibility for such a decision rests with the local community, especially the medical profession and hospital authorities.

Should it be deemed advisable to organize some system of group hospitalization insurance to supplement the already existing facilities within the community, these principles are intended to serve as a guide to county medical societies in their study of any action on such insurance proposals.

County medical societies should give careful consideration to these principles, not because they were imposed on them by arbitrary authority but because the principles and the officially adopted policies express the opinion of the members of the societies which constitute the American Medical Association.

Socialized Medicine Decreases Number of New Medical Students.—The annual report of Vienna University, published each year at the beginning of the winter semester, contains figures on the distribution, nationality and vocational bent of the students and graduates. During the last year (1936–1937) covered by the report, 1,430 students (about one third of them women), received the doctor's degree in the regular manner from one of the four faculties (law, medicine, philosophy, and theology). For seven years past the number of newly graduated doctors has exhibited a steady year to year increase. In 1930, 965 persons received the doctorate and since then the rate of increase has been around seventy each year. One is struck by the interesting fact that the distribution of graduates among the various faculties has remained almost uniform. The law school conferred annually about 40 per cent of all doctoral degrees, the medical and philosophical faculties about 30 per cent each, whereas only some twenty theologians were graduated each year. Only in this last year does there appear an increase in the number of newly graduated doctors of medicine and this is proportionately greater among women physicians. But statistics with respect to medical undergraduates present a quite different picture. Among the total student population of nearly 9,000 there are 3,466 medical students, including 718 women. For the first time in many years a decline in the number of newly matriculated students of medicine is plainly observable. This is an obvious consequence of the bad prospect presented by the medical profession in Austria. Private practice here is being rapidly and steadily ruined by socialized medicine, which offers the population medical services at smaller cost. Furthermore, no appreciable numbers of first year students from eastern and southern Europe (the Balkans) matriculated during 1936-1937. Among the causes for this decline should be mentioned the rule that no foreign (non-Austrian) freshmen may be admitted until ample accommodation has been made for all Austrian freshmen in the laboratories, anatomy classes, and so on. If the classes are not filled up by Austrian students, foreign students may be admitted. (This rule does not apply to the graduate classes.) The foregoing measure was particularly necessitated by the steady decrease in the number of cadavers available for classes in anatomy and the shortage of space both in the school of anatomy and at the Institute of Physiology and Chemistry. Moreover, the faculty of medicine lacks funds for the construction of larger quarters. Political and religious motives may also underlie this restriction on foreign matriculants; it may be directed against an influx of students from Poland, Hungary, and Rumania.—*Vienna Letter, Journal A. M. A.*

CANNED FOODS IN THE CONTROL OF LATENT AVITAMINOSIS A

● Cases of severe vitamin A deficiency are extremely rare in this country. Recent medical research, however, has shown that latent avitaminosis A occurs more frequently than hitherto might have been suspected (1).

Fortunately, latent avitaminosis is capable of early clinical detection. One of the first effects of prolonged suboptimal vitamin A intake is a lowered dark adaptation of the eye. Any deviation from normal in this respect can be readily determined by the photometer. A second direct result of continued mild avitaminosis A is the cornification of epithelial cells in certain tissues. The presence of such cornified cells in scrapings from the bulbar conjunctiva is indicative of avitaminosis A.

Using such methods, investigation has been made to determine the frequency of latent avitaminosis A in representative groups of American adults and children. The results of these researches are of interest to everyone concerned with human nutrition.

First, it has been shown that the incidence of latent avitaminosis A in America is surprisingly high. For example, in one instance (1d) more than one-third of the adult group under investigation displayed evidences of mild vitamin A deficiency; again, from one-fourth to three-fourths of the members of representative groups of children displayed similar manifestations (1b).

Second, it has been found that, in general, subjects exhibiting symptoms of mild avitaminosis A had been maintained on diets which may be considered suboptimal with respect to vitamin A. Last, but by no means least, it appears that these avitaminoses may be corrected and controlled by specific vitamin A therapy; by readjustment of the diet to provide a more liberal supply of vitamin A; or by a combination of these two procedures.

When readjustment of the diet to increase the vitamin A intake is being considered, attention might well be directed to commercially canned foods. Biochemical research has established that the canned varieties of foods notable for their vitamin A content are valuable dietary sources of the vitamin (2).

Available at all seasons on practically every American market, commercially canned foods will prove economical and reliable in the formulation of dietary regimes calculated to control latent avitaminosis A.

AMERICAN CAN COMPANY

230 Park Avenue, New York City

1a. 1934. J. Amer. Med. Assn. 102, 892.
b. 1936. Ibid. 106, 996.
c. 1937. Ibid. 108, 7 and 15
d. 1937. Ibid. 109, 756.
2. 1931. J. Nutrition 4, 267
1932. Ind. Eng. Chem. 24, 650.
1933. J. Amer. Diet. Assn. 9, 295.
1935. Amer. J. Public Health 25, 1340.

This is the thirty-first in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods

The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

ADDRESSOGRAPH SERVICE

CALIFORNIA MEDICAL ASSOCIATION

Open to Members and Advertisers in California and Western Medicine

1. **Envelopes addressed to members of the California Medical Association $20.00**

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The Future of Medical Practice in New Zealand.—Medical practice in New Zealand is at the crossroads. The Government has the ambition of providing a complete health and medical service for the people of New Zealand, whereby the best possible service is available, free of charge, to all members of the community irrespective of their financial situation. The Government desires to give every citizen sound physical health and a longer expectation of life through free advice and treatment from the best doctors available. As one member of the Government, Dr. T. G. McMillan, the member for Dunedin West, expressed the Government's ambition: "We do not want a medical service geared by the poor man's pocket, but we want the best available to everyone in the dominion." He further stated that it was hoped to improve the personal relationship between patient and doctor by removing the general cause of irritation between them—the fee. It is considered that this has been an economic barrier which has been responsible for the tragic failure to prevent incurable disease. The New Zealand branch of the British Medical Association, through its president, Dr. T. D. M. Stout, has stated that it would act in the fullest coöperation with the Government. But at the same time the Association is doubtful whether any scheme embracing a large section of the community is either necessary or desirable. Adequate provision, however, with a full health service, should be made available to people not able to make financial provision for it themselves. The Government has stated that it does not contemplate any scheme which will react detrimentally on the profession as regards either its earning or its professional standard. The British Medical Association considers that the development should be of an evolutionary nature and that it should start with the class of people of the lowest income groups, with the possible addition of other sections of the people as the scheme develops.

A special committee, consisting of members of parliament and department officers, has been appointed by the Government, and this committee is examining all aspects of health insurance. An opportunity will be provided for interested parties to appear before a select committee of the House of Representatives to make any further suggestions or recommendations they wish to do. To assist in the preparation of a satisfactory scheme of national health insurance, Sir Henry Brackenbury is coming to New Zealand on the invitation of the New Zealand branch of the British Medical Association and will arrive early in September. Sir Henry Brackenbury, who was a noted British authority on the medical aspect of national health insurance, will spend about three months in the dominion. At present the public hospitals of New Zealand are maintained by government subsidies, by local taxes and by patient's fees, but these charges are not nearly sufficient to cover the cost of maintenance, and a large proportion of the patients who receive either in-patient or out-patient treatment pay nothing at all. It is significant that the "means" test for out-patients at the Wellington Hospital has been abolished. According to the Hospital Act, and to the practice of the controlling authorities of the larger hospitals, the wards of public hospitals are open to all classes of the community, rich or poor alike.

Great building schemes are in contemplation. It is considered in New Zealand that £1,250 is nowadays by no means too large a sum to spend on the capital cost of a bed in a public hospital. The hospitals are developed to a high state of efficiency as regards equipment, with a corresponding increase of expenditure to a degree not originally contemplated. Maintenance increases have resulted from the adoption of the forty-hour working week, which has been ordained by the present Government, and wages have been considerably increased. In the Wellington Hospital, for instance, last year's expenditure in salaries and wages was £62,448 and this year it will be greatly increased, for the items of the wages of the male attendants alone in the hospital has increased by 40 per cent in the hospital board's estimates.

The Economic Aspect.—The population of New Zealand, including Maoris, at the last census was rather more than one and a half million. It is proposed to pay doctors at the rate of £1 per head annually as a retainer. All materials

(Continued on Page 40)

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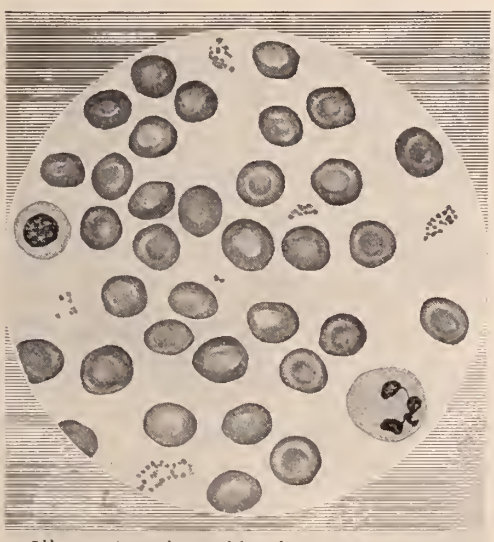
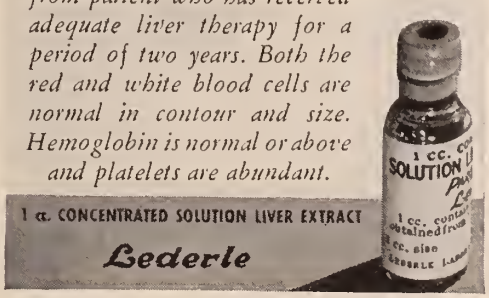


Illustration shows blood smear from patient who has received adequate liver therapy for a period of two years. Both the red and white blood cells are normal in contour and size. Hemoglobin is normal or above and platelets are abundant.



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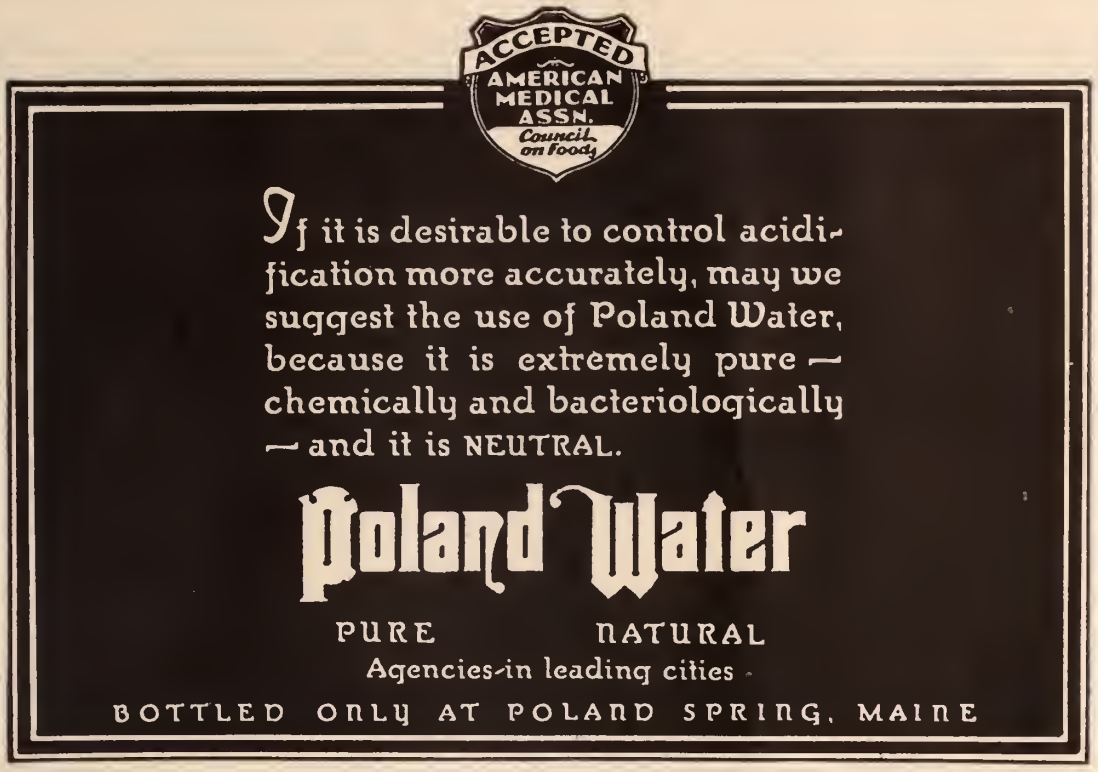
(Continued from Page 38)

and other expenses will be absolutely free to patients and will be paid for by the Government. It is estimated that the cost of the health scheme contemplated by the Government is three and a half million pounds annually. This would be equivalent to a tax on wages, and on income other than wages, of seven pence in the pound. If the population were distributed among the medical practitioners, each doctor having his own list, there would remain a sum in the vicinity of two million pounds for extra services. It is believed that the proposal involves free medical and nursing service in maternity cases, involving from fifteen to twenty pounds in each case. This would require about another half-million pounds. The scheme would provide also for special hospital attention, traveling expenses of doctors and patients, and the provision of special homes and hospital staffs.

At present the burden on taxpayers for hospitals and for all local, municipal and borough services is inequitable. It seems that the increasing cost of hospitals in New Zealand is extravagant. Paying wards in hospitals are said to be undemocratic. Experience has shown that original estimates of hospital and other costs for medical services cannot be made proof against increasingly mounting expenditure, and there is a feeling that a stage of expansion will be reached when even a state with all its powers of taxation will find its financial burden too great to bear. The tendency toward the abolition of honorary staffs, and the substitution therefor of paid full-time or part-time surgeons and physicians, will itself mean a large increase of expenditure. Four large metropolitan hospitals at present require new treatment machines for high voltage roentgen therapy. This is estimated to cost £36,000.

It is considered that the complete nationalization of public hospitals will be the inevitable outcome of the Government in its attitude toward medical services. At present in New Zealand the state pays the whole cost of schools, and the education system generally, from taxation funds.



And the same principle is intended to apply to medical service. There is a marked socialization trend in New Zealand today. Ownership of property has become extensively socialized with the system of state lending for homes on a very narrow margin of security, with the result that the average wealth of taxpayers is very low. The tax burden, moreover, apart from the cost of maintenance of hospitals, has increased with the development of other social services and schemes of municipal progress.—Australia Letter, *Journal of the American Medical Association.*

Extensive Report on Women's Economic Status Just Issued by Women's Bureau.—New slants on basic issues related to women's economic status in modern American civilization are found in a publication just off the press. Entitled "Women in the Economy of the United States of America" and bound in a distinctive and symbolic cover, the study is the work of Mary Elizabeth Pidgeon, chief of the research division of the Women's Bureau, United States Department of Labor.

This comprehensive and coördinated survey of the varied problems and the position of women today supplies a much needed answer to many queries that pour into the Bureau. The report has been sent to the International Labor Office, which was seeking such information from women's organizations in this country. Thus, this general study was undertaken by the Women's Bureau, at the request of the following ten large women's organizations, which were not equipped to do the work but assisted with valuable suggestions: American Association of University Women, American Home Economics Association, Interprofessional Association, National Board of Young Women's Christian Association, National Consumers' League, National Council of Catholic Women, National Council of Jewish Women, National Federation of Business and Professional Women's Clubs, National League of Women Voters, National Women's Trade Union League.

Under the general theme of women's opportunity for a livelihood the report includes the nearly eleven million women engaged in remunerative work, of whom well over a third are also home makers, and the 24½ million non-wage earning home makers, the vast majority of whom have no paid help with their household tasks. Miss Pidgeon not only stresses the value of the economic contributions of the gainfully employed women, who in so many instances support dependents, but points out that "the years of the depression have revealed a new appreciation of the economic importance of the housewife's services—of how large a share of the family living she produces."

To refute the traditional argument that the employment of women is the cause of the unemployment of men, the report analyzes the chief influences responsible for development of the entire modern economic set-up and causing inevitably the entrance of large numbers of women into gainful occupations. A paramount factor in such trends was the shift from household to factory manufacture or from hand skills of women to machine processes. Thus, it is not a question of women's taking jobs from men, but of the adaptation of the sexes to the work of the world.

"Ordinarily the jobs performed by the two sexes differ, and hence replacement as such usually does not occur," Miss Pidgeon states, pointing out that where the employment of women increases though that of men may be declining this is due to changes in process and the lower wage customarily paid women.

The highly controversial question of the double-wage standard in this country is discussed at length, with a mass of wage data by sex showing that no matter what the year, the locality, or the type of occupation, the levels of women's wages are much below those of men. Even in many fields where women are employed on semi-skilled processes, on work that often requires considerable dexterity and care, and men are engaged in unskilled labor, the women's wage rates are found to be well below those of the unskilled men.

This unfair and unsound situation arises partly because women so often are used as a fill-in labor supply for highly seasonal industries; partly because women's work was formerly concerned so largely with unpaid household tasks; and partly because women form large proportions of the workers in the great piece-work industries, and piece rates for such jobs often are fixed on the old customary basis of

(Continued on Next Page)

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considering women's work as of slight money value, according to the report.

This and other forms of exploitation of women are stressed in the study as the reasons for special wage and hour legislation for industrial women. "Efforts have been made to establish minimum wages for women with the sanction of the Government in order to fix a bottom figure below which women may not be paid, and thus to draw wages in the lower brackets more nearly up to the levels already maintained in the payment of men," it is explained. Such legislation is reported as serving also to protect men in fields where the manufacturers' use of cheap woman labor has tended to pull down the level of men's earnings.

Regulatory hour laws for industrial women, the bulletin reveals, are not on the whole a handicap to them but give them the benefits of modern standards of shorter hours, now accepted as essential by efficient management and already enjoyed to a greater degree by men, a larger proportion of whom have been concentrated in organized industries. Data reveal that hour and wage legislation do not limit women's opportunities or cause their dismissal from jobs, except perhaps in some very occasional isolated case.

Unemployment of women, it is stated, results from other and quite different causes, some of which are similar to those responsible for men's loss of jobs, such as the depression, seasonal nature of industries, technological changes, increasing age of the workers. Other causes of women's unemployment more definitely identified with their sex are discrimination against married women workers in some quarters and the system of part-time jobs in such important woman-employing industries as stores and restaurants, for example.

Some of the forces or trends the bulletin cites as influential factors in developing employment opportunities for women in various fields may be summarized as follows:

In manufacturing, the type of product made in a plant, the division and simplification of manufacturing processes, the development of machinery, the labor supply and its costs, and the general psychology of the times;

In stores, a more liberal attitude and successful experimentation with women on new jobs;

In the clerical and professional fields, the higher education of women, growth of the modern structure of commerce, trade, and communication, and a gradually increasing confidence in women's ability on the part of the public;

In domestic and personal service, which gives employment to three-tenths of all the gainfully occupied women today, the mushroom growth of certain service industries, such as beauty shops, hotels, restaurants, and power laundries.

Workmen's Compensation Acts: Compensability of Sequelae of a Cold.—The claimant, Amann, in the course of his employment as a truck driver for a transportation company, was exposed to the rain and to chilling winds because of the lack of glass in the windows of the cab. He contracted a severe cold. Congestion of his throat, chest and lungs associated with an elevated temperature and the coughing up of blood developed. Finally he was forced to go to bed, where he remained for about three weeks. He then attempted to return to work but was so weak and suffered such pains and aches that he went back to bed. Thereafter he was unable to perform manual labor. He claimed that as a result of his illness he tired easily, was unable to work more than a few minutes at a time, that his heart had been affected causing him pain and suffering at intervals, that he had lost weight and was debilitated, and that his lungs had been affected and weakened. The industrial accident board denied him compensation under the workmen's compensation act of Texas, whereupon he brought suit to set aside the board's decision. From a judgment of the trial court denying relief, he appealed to the court of civil appeals of Texas, Fort Worth.

The purpose of the workmen's compensation act, said the court, is to compensate an employee for injury sustained during the course of employment. The injury contemplated is defined by the act as "damage or harm to the physical

(Continued on Page 44)

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(Continued from Page 42)

structure of the body and such diseases or infection as naturally result therefrom." It was not contemplated that the act should cover health insurance. It is a matter of common knowledge that colds, influenza, and pneumonia are the result of germs attacking the body and that many such germs appear to be in the very atmosphere surrounding us at all times. Any and every person is exposed to them without being conscious of the fact. Medical science teaches that human beings fall victims of these germs because at the time they are not physically able to withstand the assaults of the germs. If, said the court, the employee in this case is permitted to recover compensation, then every employee who is engaged in labor which tires the body and causes what the layman calls a "run-down condition" can recover compensation by showing that his work weakened him and lowered his resistance and caused him to succumb to the attack of any disease, which he would otherwise have been able to resist. Attempts so to enlarge the purpose of the workmen's compensation act will destroy its usefulness.

Accordingly, the court of civil appeals affirmed the judgment of the trial court upholding the order of the industrial accident board denying compensation.—*Amann* vs. *Republic Underwriters* (Texas), 100 S. W. (2d) 778.

Federal Cannabis Regulations Approved.*—Regulations for effectuating the provisions of the Marihuana Tax Act of 1937 were approved September 29 by the Secretary of the Treasury. The general requirements of the act as they relate to physicians were stated in the Organization Section of *The Journal*, September 11, pp. 31B and 32B. Every physician who distributes, dispenses, gives away, administers or prescribes cannabis or any of its derivatives or preparations is required by the act to register with the collector of internal revenue of his collection district, obtain an official registration number and pay the required tax.

Applications for registration must be filed on form 678c, procurable from the collector of internal revenue. An inventory, in duplicate and under oath, of all cannabis and preparations thereof on hand must be filed with the application. Physicians will normally register in class four and be subject to a tax of $1 each year. A physician who sells or dispenses cannabis apart from the legitimate practice of his profession is liable to an additional tax of $3 a year as a dealer. If he dispenses cannabis only incidentally to the legitimate practice of his profession, he incurs no liability for the tax imposed on the dealer. A physician maintaining an office in a collection district where he is duly registered with the collector of internal revenue and where his stock of cannabis and his cannabis records are kept may, but only in the course of his professional practice, distribute, dispense, give away, administer or prescribe cannabis in other collection districts in which he lawfully engages in the practice of his profession, without incurring additional tax liability; but if he maintains an office in another collection district or even maintains two or more offices in the same collection district, he must pay a tax with respect to each office.

Hospitals, colleges, medical and dental clinics, sanatoriums and other institutions, not exempt as government institutions, are subject to the same taxes and incidental regulation as other registrants similarly dealing in or handling cannabis. When an institution is subject to tax, the head thereof or of the department wherein the cannabis is to be used must sign the application for registration. Nurses, under the regulations, are regarded as agents of the practitioners or institutions under whose direction or supervision their duties are performed. They are not permitted to register under the act nor are they permitted to be in possession of cannabis except as such agents, or as patients. Cannabis left by a physician with a nurse, to be administered during his absence, must on her discharge from the case be returned to the physician, who will ac-

(Continued on Page 46)

*Prepared by the American Medical Association Bureau of Legal Medicine and Legislation.

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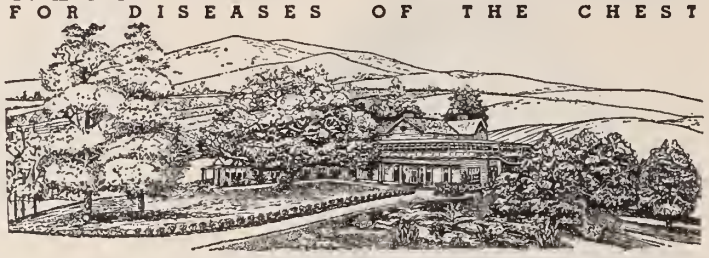

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(Continued from Page 44)

count for it on his records. Any cannabis found in the possession of a nurse not at the time under the supervision of a physician will be forfeited to the government.

A physician desiring to obtain cannabis must make application on form 679a (Marihuana), to the collector of internal revenue for the district in which the physician is located for the purchase of an order form. The application must show (1) the physician's name, address and cannabis registry number, (2) the name and address of the person from whom the cannabis is to be purchased, and (3) a description of the desired cannabis and the amount to be purchased. The application must be accompanied by a certified check, cash or money order in payment of the transfer tax of $1 an ounce or fraction thereof, plus two cents in payment of the order form. Order forms will be prepared by the collector in triplicate. The original and duplicate will be delivered to the physician. He will deliver the original to the person from whom he purchases the cannabis and preserve his duplicate copy for two years. The triplicate will be retained by the collector. There are no exempt medicinal cannabis preparations; every preparation containing cannabis in any form and in any amount is covered by the act. Physicians must keep daily records showing the kind and quantity of cannabis dispensed or administered, the name and address of each person to whom dispensed or administered, the name and address of the person on whose authority the cannabis was dispensed or administered, and the purpose for which it was dispensed or administered. Every such record must be kept for a period of two years in such manner as to be readily accessible to inspection by investigating officers. No special record form will be furnished by the government for the use of those registered as practitioners, including hospitals and institutions, but each registrant is advised to keep records in the manner that is best calculated to enable an inspecting officer quickly to ascertain the quantity and kind of cannabis used daily. The initials of the practitioner giving directions for the administering of cannabis to a patient in a hospital should appear on the patient's record chart, or a prescription may be used, giving the name and address of the patient, the date, and the physician's signature or initials, which should be filed with the pharmacist in charge of the drug room before the cannabis leaves his charge. If, however, a prescription is used, reference to it should appear on the chart.

All prescriptions for cannabis must be dated as of and signed on the day when issued and must bear the full name and address of the patient and the name, address and cannabis registry number of the practitioner. Prescriptions should be written with ink or indelible pencil or be typewritten. If typewritten, the prescription should be, of course, signed by the physician. The refilling of a prescription for cannabis is prohibited by the regulations. Generally, the furnishing of cannabis pursuant to telephone advice of physicians is prohibited, whether prescriptions covering such orders are subsequently received or not. In an emergency, however, a dealer may deliver cannabis through his employee or responsible agent pursuant to a telephone order, provided the employee or agent is supplied with a properly prepared prescription before delivery is made, such prescriptions to be turned over to the dealer and filed by him as required by law within a reasonable time after delivery. The government does not furnish prescription forms. Any form may be used, provided it is properly executed and shows the required information.

A physician who utilizes cannabis in the course of his professional practice should obtain a copy of the regulations that have been promulgated and familiarize himself with their requirements. Application for such a copy may be made to the collector of internal revenue of the collection district in which registration is to be effected.

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Sulfanilamide Rash.—In administering sulfanilamide to 180 patients both orally and parenterally, Schwentker and Gelman observed ten in whom a rash developed. In some cases it was recognizable as early as the third day of medication with sulfanilamide; in half of the cases it appeared between the tenth and fourteenth days. The eruption is distinctly morbilliform in character, is made up of maculopapular lesions slightly raised from the surrounding unaffected skin and is brownish red. Although it does not fade completely when pressure is applied, the blanching of the rash is considerably more marked than that seen with a typical measles eruption. Usually almost the entire surface of the body is affected, but in some cases the rash has been limited to the buttocks or to the legs. In some of the patients the eruption was seen on the palms of the hands and the soles of the feet, while the mucous membranes were apparently unaffected. There was no itching or other abnormal sensation at the site of the lesion. With discontinuance of sulfanilamide therapy the eruption fades rapidly and may disappear completely in forty-eight hours. If administration of the drug is resumed, the rash sometimes reappears faintly or in scattered areas but never assumes its former brilliance, and even this slight recrudescense gradually fades away. If the sulfanilamide treatment is not discontinued at the time of the primary rash, the eruption fades and disappears completely in about seventy-two hours.—*Johns Hopkins Hospital Bulletin.*

New Process Discovered for Sterilizing Wool.—A process that sterilizes wool fabrics without damaging the fibers has been discovered by three workers in the United States Department of Agriculture. Although this method has as yet been tried only under laboratory conditions on undyed blanket fabrics, it is believed to have practical possibilities for commercial use. The next step will be to test it out in dry-cleaning and other industrial plants.

Heretofore any process that killed the microörganisms in the wool did considerable damage to the material itself.

(Continued on Next Page)

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(Continued from Preceding Page)

But the Department's research workers found that by heating the wool material in xylene, an organic liquid, they could sterilize the wool and leave it essentially unchanged otherwise. They found Stoddard solvent and tetrachlorethylene were also successful when used in place of xylene.

In general, the two types of microörganisms that it may be necessary to kill are the ones that cause disease and those that damage the wool itself. Army supplies, clothing contaminated by flood waters, and hospital blankets must be sterilized to prevent spread of disease. And mildewed blankets contain organisms that affect wool fiber itself.

Ruth Elmquist and James Kettering of the Bureau of Home Economics carried out the research for this process in collaboration with Harry Humfeld of the Bureau of Plant Industry. Application has been made for a public service patent.

They worked with undyed, laundered, wool blanket material, one of the most difficult wool fabrics to sterilize. And they took as a representative microörganism Bacillus mesentericus, which is destructive to wool and very resistant to adverse conditions.

Other methods of sterilization tested in the research proved to be unsatisfactory either because they were ineffective in killing the microörganisms or because they damaged the material. Use of ultra-violet light, potassium permanganate, iodin, alcohols, glycerol, tribrombetanaphol, tetracholorethane and phenylphenates did not produce sterility. Formaldehyd and mercuric salts sterilized, but left a residue in the wool. Intermittent steaming sterilized the material, but injured the fabric.

New Source of Vitamin A.—In the course of a study of the mode of occurrence and distribution of vitamin A, Lovern and his colleagues found that the viscera (excluding the livers) of the halibut yield abnormally rich oils. The fish were caught in Shetland waters in May this year. The viscera are normally thrown into the sea although they may contain, as in these cases, as much vitamin as the liver and may yield more potent oils.—*Nature.*

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FIVE-YEAR STUDY PROGRAM FOR GRADUATES IN MEDICINE

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THE CALIFORNIA MEDICAL ASSOCIATION

THROUGH THE COMMITTEE ON POSTGRADUATE WORK

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FOREWORD

The American Medical Association, with its constituent state and county units, recognizes the need for the continued education of practitioners of medicine.

Postgraduate work comprises the continuation education of the practitioner of scientific medicine. It enables him to remain abreast of scientific progress and to apply in his daily practice the newer procedures with an understanding of their underlying principles and fundamentals.

The California Medical Association recognizes and proposes to discharge its obligations to afford opportunities to its members to engage in continuing educational studies with a minimum of inconvenience, time, and expense. To that end, the educational opportunities listed in this prospectus have been developed and are being made available to the members of the Association.

These conferences are not intended to prepare physicians for any specialty. The subjects presented will be dealt with in a practical, clinical manner, and not didactically. Clinical demonstrations will feature each presentation.

These conferences have been planned on a five-year program basis, and each year will disclose a varied arrangement of subjects. Policies, methods, attendance credits, reviews, and short intensive intramural courses in the medical colleges of this State will be announced from time to time in California and Western Medicine.

Clinicians will be selected from the staffs of all four California medical colleges and from the staffs of approved hospitals. In every instance the clinician will be one who has established a reputation as being a competent man in the subject assigned and possesses the ability to conduct his clinic in true teaching atmosphere.

The committee trusts that members will recognize the great personal value that this program can have for every practicing member. It is hoped they will embrace these opportunities in their respective districts.

For further information, address California Medical Association, F. C. Warnshuis, M. D., Secretary, 450 Sutter Street, San Francisco.

Committee on Postgraduate Work:

John C. Ruddock, M. D., *Chairman*
F. E. Clough, M. D.
F. F. Gundrum, M. D.
C. A. Broaddus, M. D., *Advisory Member.*

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GENERAL INFORMATION

I. Postgraduate Centers

The list below gives location of suggested centers. Conferences may be held in designated cities as the registrants determine to be most desirable and convenient.

STOCKTON

San Joaquin, Stanislaus, Calaveras, Tuolumne.

FRESNO

Fresno, Merced, Tulare, Kings.

RIVERSIDE, SAN BERNARDINO

San Bernardino, Riverside, Orange.

SAN DIEGO

San Diego, Imperial.

SANTA BARBARA

Santa Barbara, San Luis Obispo, Ventura, Kern.

SAN JOSE

Santa Clara, Santa Cruz, Monterey, San Benito.

SANTA ROSA

Sonoma, Napa, Marin, Lake, Mendocino.

SACRAMENTO

Sacramento, Yolo-Colusa-Glenn, Yuba-Sutter, Placer.

NORTHERN CALIFORNIA

Because of extensive distances requiring extraordinary time in traveling on the part of clinicians, the committee contemplates forming teams of clinicians that will conduct a series of conferences in key centers in Northern California.

II. Application for Sessions

1. County Societies constituting a councilor district will appoint a Postgraduate Committee, composed of one member from each society.

2. This Councilor District Committee will meet with their councilor and determine:

(*a*) Place for the postgraduate session.

(*b*) Number of meetings desired.

(*c*) Dates and hour of meetings.

(*d*) Subjects.

3. Application, imparting this information, will then be sent to the State Association Secretary, who in conference with the committee, will make assignments.

4. District Committee will assume charge of the session and all local arrangements.

III. Postgraduate Conferences: Recommendations to Clinicians

These courses have been prepared and selected by the Committee on Postgraduate Work, and clinicians must follow the outlined courses which have as their purpose the presentation of fundamental and underlying principles in each subject and their *practical* modern application.

1. It should be remembered that your audience is composed of *graduate* practicing physicians. Undergraduate phases of any subject should be eliminated, unless recent developments have established new, accepted principles and concepts.

2. The presentation shall be clinical and not didactic. Formal papers shall not be read.

3. Presentation of subjects shall be made by illustrations, lantern slides, specimens, and clinical cases whenever possible.

4. Clinic cases will be made available. Clinicians are urged to contact in advance the local committee and inform its members as to the type and number of cases desired, what history and laboratory findings are desired, and what other material will be required. Arrangements should be made to see a case *before* the time scheduled for presentation.

5. Practical application of diagnosis and treatment should be demonstrated on the patient or described by means of slides, drawings, apparatus, or outlines of therapy, diet, and care.

6. Whenever possible, conferences will be conducted in local hospitals, where clinical facilities will be made available.

7. Discussion of presentations will consist of questions and answers.

8. Avoid intricate theorization. If indicated, give reference to the literature for personal study of theory. Emphasis to underlying fundamentals and practical application should characterize each presentation.

IV. Clinical Instructors

The faculties of the University of California, Stanford, University of Southern California, and the College of Medical Evangelists will coöperate with the California Medical Association by making available members of the faculties for participation in and carrying on these conferences.

The Committee on Postgraduate Conferences will recommend upon request, at any time, members of the California Medical Association specially trained in the various subjects to be given at these conferences.

The California Tuberculosis Association, the California Heart Association and the Los Angeles County Clinical Statistical Association, upon request, will recommend members of their organizations suitable for subjects in tuberculosis and heart disease.

LIST OF COURSES

I. HEART DISEASE

The courses on heart disease are arranged and given with the coöperation of the California Heart Association. The California Heart Association has made available to the Committee on Postgraduate Activities moving-picture films, lantern slides, and statistics, as well as participation in their established program of consultative clinics on cardiac diagnosis.

* * *

1. A Heart Clinic

A talking, colored moving picture, showing all common heart lesions with synchronized heart sounds with the animated valves of the pathological specimens of the cases cited.

Offered by the California Heart Association.

2. Electrocardiography Simplified

A moving picture, showing animated drawings of the course of the impulse through the bundle of His, coördinated with the electrocardiograph tracing and its interpretation.

Offered by the California Heart Association.

3. Cardiac Silhouettes

Demonstration of x-ray plates of various types of cardiac diseases and pathology, with interpretation of plates.

Offered by the California Heart Association.

4. Rheumatic Endocarditis

A demonstration by pathological material illustrating typical heart lesions, with presentation of cases showing these lesions.

5. Syphilis

A pathological demonstration of lesions of the circulatory system as the result of syphilis. Case presentation. Treatment and prognosis.

6. Hypertension

A demonstration of cases of high blood pressure, with a discussion of causes, prognosis, and treatment of various types.

7. Arteriosclerosis

Case presentation with discussion of cases. The "cardiorenal syndrome"—treatment and prognosis.

8. The Cardiac Irregularities

Case demonstration of various types of cardiac irregularities with short discussion of etiology, prognosis, and treatment.

9. Congenital Heart Disease

A short discussion, with lantern-slide demonstration of cases. Prognosis of various lesions. (Presentation of cases when available.)

10. The Decompensated Heart

Demonstration of decompensation of various degrees, with a discussion of treatment. Digitalis, diet, and rest. Convalescent care.

11. Coronary Disease

Case demonstration of angina pectoris, coronary thrombosis, with pathological presentation and electrocardiography. Diagnosis, etiology, prognosis, and treatment. Relation to disability benefits in life-insurance policies.

12. Circulatory Accidents

Case history presentation of cases of:

(*a*) Pulmonary embolism.
(*b*) Cerebral embolism.
(*c*) Mesenteric embolism.
(*d*) Kidney infarcts.
(*e*) Splenic infarcts.
(*f*) Iliac thrombosis.
(*g*) Peripheral artery embolus.

Diagnosis and indications for, with technique of embolectomy.

13. Disturbances of Peripheral Circulation

This course will deal with both venous and arterial disease of the extremities.

(*a*) Gangrene.
(*b*) Buerger's disease.
(*c*) Raynaud's disease.
(*d*) Erythromelalgia.
(*e*) Arteriovenous aneurysm.
(*f*) Emboli.
(*g*) Phlebitis.
(*h*) Varicies.

Case demonstration and case histories will be used for the discussion of various types of disturbances.

*

II. DISEASES OF THE CHEST

Diseases of the chest will be presented in eight periods by demonstration and graphic methods.

* * *

14. Epidemiology, Etiology, and Public Health Aspects

One of the outstanding accomplishments of the present century in medicine is the yielding of tuberculosis to the measures which are being directed toward its prevention and care, and the differential diagnosis of other chest diseases. The first period will demonstrate the epidemiology, the etiology, and the public health and sociological factors of pulmonary diseases. (Lecture.)

Note: The courses on diseases of the chest are offered with the assistance of the California Tuberculosis Association. This Association has for a number of years held postgraduate clinics in conjunction with county medical societies on the diagnosis and treatment of tuberculosis. These clinics are now offered and are made available to the Committee on Postgraduate Activities.

15. Classification of Pulmonary Tuberculosis

The response of the body to an invasion of the tubercle bacillus for the first time is the formation of a lesion at the site of infection and in the regional lymph nodes. A first infection lesion within a month or two is followed by altered tissue reactions. Pathology will be demonstrated; childhood type and exudative, productive and chronic ulcerative adult types of the disease will be depicted by x-ray films.

16. Diagnosis of Pulmonary Tuberculosis

Careful study and accurate systematic physical examination of patients will be demonstrated. Illustrated and demonstrated will be history, symptoms and clinical manifestations, physical signs, x-ray evidence, tuberculin test, laboratory tests, exclusion of other causes.

See Course No. 15.

17. Medical Treatment of Pulmonary Tuberculosis

Pathologic evidence of healing of lesions will be presented, criteria of selective treatment will be demonstrated, and procedure illustrated, such as rest, diet, fresh air, sunshine, drug therapy, mechanical devices, and individual study of the patient.

See Course No. 15.

18. The Pneumonias

Lobar pneumonia kills 1,500 Californians each year. About half of these deaths are believed to be preventable in the light of new medical discoveries. This period will present differential diagnosis between lobar and bronchopneumonia, with special attention to the more obscure forms; the importance of etiological rather than pathological diagnosis. Importance of the newer methods of rapid pathological diagnosis. Importance of the newer methods of rapid typing; values and limitations of specific serum therapy; laboratory control of serum therapy; initiate proper use of oxygen in and out of the hospital; importance of nursing care and suggestive treatment of all pneumonias.

19. Nontuberculous Diseases of the Lungs

So common a disease as pulmonary tuberculosis is apt to be confused with other diseases of the chest. Differential diagnosis will be demonstrated and classified as follows: Asthma and allergic disorders; bronchopneumonia: bronchiectasis, lung abscess, pleurisies, lung and mediastinal tumors, Hodgkin's disease, pulmonary infarcts, bronchitis, aortic aneurysm, pulmonary syphilis, fungus infections, bronchial stenosis, foreign bodies, and emphysema.

20. Surgical Treatment of Pulmonary Disease

Selective methods of surgical treatment will be demonstrated and the following procedures illustrated or demonstrated: phrenicotomy, artificial pneumothorax, pneumoperitoneum, thorocoplasty, extrapleural and intrapleural pneumolysis, drainage of the lung and pleura, and lobectomy.

21. Supplementary Subject

Special problems arise in various parts of the State, and to meet the interest and needs of any group special courses will be prepared dealing with tuberculosis in children, racial tuberculosis, silicosis, coccidioides, rehabilitation, x-ray diagnosis, public health sociological aspects of lung diseases, or other aspects of lung diseases.

*

III. LESIONS OF THE ABDOMEN

Courses offered in this subject to cover methods of diagnosis, special tests, methods of treatment, both medical and surgical. The courses will be presented through case histories, bedside clinics, demonstration of patients, lantern slides, and presentation of pathological material.

* * *

22. Intestinal Obstruction

This course will deal with the etiological factors of intestinal obstruction. Brief case history reports of cases, demonstrating the various etiological factors. Surgery of acute and chronic cases with the preoperative and postoperative case. Complications and how avoidable.

23. Perforations

This course will deal with the various types and causes of perforations occurring in the gastrointestinal tract. The diagnosis and treatment of acute perforations of esophagus, stomach, duodenum, small intestines, and colon. When to operate. Mortality statistics. Complications. Presented by case histories and lantern-slide demonstrations.

24. Appendicitis

Differential diagnosis with mistakes encountered. What is chronic appendicitis? How diagnosed? Value of laboratory work. Sedimentation rate and Schilling counts. Roentgen diagnosis. Surgery with indications pro and con. Presented by demonstration of patients with case histories.

25. Acute Cholecystitis

Differential diagnosis with evaluation of laboratory methods and procedures. The gangrenous gall bladder. Empyema of gall bladder. Rupture—cholelithiasis with acute attacks—acute inflammation. Medical management and surgical indications and procedures.

This course to be presented by case demonstration.

26. Acute Pancreatitis

Methods of differential diagnosis, with indications for surgical interference and operative procedures. Causes. Complications.

Presented by case histories.

27. Visceral Rupture

Relation of visceral rupture to industrial injury. Traumatic rupture of bowel, liver, spleen, kidney, and bladder. Methods of diagnosis. Relation to skull injuries. Procedures to institute.

Presented by case histories.

28. Peritonitis

Various types of inflammatory lesions of peritoneal cavity. Colon, streptococcus, staphylococcus, and tuberculosis. Methods of culture and vaccine treatment. Ileus. Spider bite. Surgical judgment.

Presented by case demonstration and histories.

29. Tumors of the Abdominal Cavity

Diagnosis, with relation to size, mobility, consistency, pain, fever, etc. Presentation of cases with discussion of differential diagnosis and treatment.

30. Colitis

Presentations of cases with discussion presenting:

(*a*) The spastic colon.
(*b*) Ulcerative colitis.
(*c*) Amebic dysentery.
(*d*) Enterocolitis, acute and chronic.

The management of the cases, with treatment and diet, will be brought out in the discussion of the cases.

31. Ascites

A demonstration of cases with ascites and lantern-slide demonstration of types. Laboratory methods of differentiation of causes of ascites. Methods of tapping. Drug therapy. Surgery.

32. Cirrhosis of Liver

Case demonstration, with presentation of pathological material showing different types. Atrophic, hypertrophic, biliary, acute atrophy, and hepar lobatum. Treatment.

33. Peptic Ulcers

This course to consider gastric and duodenal ulcers. Demonstration of cases, case histories with differential diagnosis as shown by roentgen plates, gastric analysis, etc. Medical regimen and surgical treatment.

34. Malignancy

Consideration of malignant lesions of the stomach. Statistics by lantern slide presentation. Demonstration of cases and case histories. Treatment: palliative and surgical; exploratory surgery.

35. Malignancy of Colon

Newer methods of surgical treatment of malignancies of cecum, colon, sigmoid, and rectum. Radiation therapy.

36. Hemorrhage

Demonstration by cases and case history of various types of abdominal hemorrhage.

(*a*) Esophageal hemorrhage.
(*b*) Gastric hemorrhage.
(*c*) Duodenal and small bowel bleeding.
(*d*) Large bowel bleeding.
(*e*) Rectal bleeding.
(*f*) Intraperitoneal hemorrhage.

Symptomatology, differential diagnosis, treatment.

37. Traumatic Surgery

Hand injuries and infections.
Injuries to peripheral nerves.
Intra-abdominal traumatisms.
Traumatic arthritis.
Shock therapy (transfusions, etc.).
Fractures of the head, skull, face, and jaws. Cerebral complications.
Fractures of vertebrae with and without cord lesions.
Fractures of the upper extremity.
(*a*) Clavicle
(*b*) Scapula
(*c*) Humerus
(*d*) Radius and ulna
(*e*) Hand
Injuries to chest and contents.
Injuries to pelvis and contents.
Fractures of hip and shaft of femur.
Fractures of patella, tibia, and fibula.
Fractures of os calcis and other bones of foot.

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IV. GYNECOLOGY*

38. Menstrual Disorders

Classification.
Anatomical, physiological, and endocrinological factors.
Points in differentiation.
Treatment—dietetic, therapeutic—glandular extracts and substances, and fallacies in physiotherapy and surgical interference by curettage, suspension.

39. Pelvic Infections

Nonspecific.
Specific.

40. Cancer—Cervix and Uterine

This session will be devoted to a thorough presentation of the subject, with emphasis upon methods of early diagnosis and treatment and use of radium with x-ray.

41. Benign Lesions and Uterine Tumors

Endocervicitis and lacerations.
Polypi.
Ovarian cysts.
Trichomonas.
Malpositions—procidentia.
Indications and limitations of office treatment.

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* See Obstetrics also.

V. OBSTETRICS*

42. Operative Obstetrics

Physical indications—mother, child. (X-ray and measurements of birth canal.)
Position.
Version—high and low forceps.
Episiotomy—lacerations—cervical and perineal.
Illustrative cases.
Surgical technique.
Accidents and complicating emergencies.

43. Toxemias of Pregnancy

Prenatal supervision.
Eclampsia—prodromal symptoms and therapeutic treatment.
Eclamptic seizure. Management and indications for termination of pregnancy by induction or section—precautions and technique.
Pneumonia and acute infections during pregnancy. Treatment of the disease and management of complicating abortion or premature labor.
Acute surgical conditions in the abdomen complicating pregnancy.
(*a*) Appendicitis.
(*b*) Obstruction.
(*c*) Acute cholecystitis.
(*d*) Perforations.
(*e*) Trauma.
Management—Surgical technique.

44. Management of Obstetrical Emergencies

Placenta praevia—diagnosis; control of bleeding; manual or section delivery.
Placental separation; diagnosis; treatment technique.
Uterine rupture—etiology; surgical treatment.
Precipitate delivery and third-degree laceration. Technique of repair. Demonstration of operative procedures.

45. Postpuerperal Complications

Septicemia.
Sinus thrombosis.
Pelvic varicosities.
Vesical fistula.
Phlebitis.
Mastitis.

Presentation will include etiology, prophylactic measures, diagnosis, and treatment, illustrated by case histories and pathological specimens and bacteriological findings.

See Courses No. 42, 43.

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VI. ENDOCRINOLOGY

46. Disturbances of Menstrual Functions Due to Hypo- and Hyperovarian Function

Principles, types, symptomatology, treatment.

47. Constitutional Conditions Resulting from Hyper- and Hypodysfunctions of the Anterior and Posterior Gland

Underlying principles, diagnostic methods, and therapy.

48. Suprarenals and Parathyroids

Constitutional results from altered functions.

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VII. ALLERGY

49. Discussion and Illustration of Accepted Principles Governing the Allergic Theory

Commoner allergic conditions and general principles governing examination, with illustration of reactions and their etiology.
Symptomatology, diagnosis.
(*a*) Diet.
(*b*) Tests.

50. Involved Allergic Reactions

Asthma.
Headaches.
Gastro-intestinal.
Nasal—pharyngeal (hay fever?).
Allergy in infants.

These will be discussed in the light of present knowledge, with emphasis upon differential diagnosis, reaction tests, diet, and antigen treatment. Illustrative cases will be presented.

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VIII. PEDIATRICS

51. The New-Born: Full Term; Premature

Immediate care.
Common disorders during neonatal period.
General management.
Artificial feeding.
Breast feeding.

Motion pictures, showing handling of the infant, preparation of food, etc., will be exhibited.

52. Infant Care

Besides hygiene and diet, growth and development will be carefully detailed. Lantern slides and motion pictures.

53. The Preschool Age Child

Hygiene (physical, mental).
Diet.
Common defects and their correction.
The fat child.
The thin child.

54. Infantile Eczema

Various types will be discussed and classified, with suggested treatment. Lantern slides.

* See Gynecology also.

55. Rickets and Scurvy

Historical review.
Changing concepts.
Criteria for diagnosis.
Course if untreated.
Prevention and treatment.
X-ray plates, lantern, slides, motion pictures.

56. Pyelitis in Infancy and Childhood

Case histories will be presented.
Laboratory work necessary for diagnosis will be demonstrated.
Recent advances in therapy.
Surgical aspects.

57. Abdominal Pain in Children

A résumé of the subject is offered.
Differential diagnosis is stressed.
Medical conditions.
Surgical conditions.
(Patients will be shown if available.)

58. Otitis Media

Seasonal variation.
Diagnosis (infants, older children).
Indications for paracentesis.
Complications.
Treatment (palliative, surgical).
Lantern slides. Proper use of the otoscope will be demonstrated.

59. The Juvenile Diabetic

The problem of management.
Diabetic coma.
Insulin shock.
Protamin insulin.
Case histories and lantern slides.

60. Active and Passive Immunization

Smallpox.
Diphtheria.
Measles.
Whooping cough.
Scarlet Fever.
Poliomyelitis.
Tetanus.
Common colds.
Poison oak and ivy.
Miscellaneous.

61. Skin Tests in Common Use

The various skin tests for tuberculosis.
The Schick test.
The Dick test.
Complement-fixation tests.
Allergy test.
Value of the various tests will be discussed, technique demonstrated, and reactions explained.

62. Sera, Vaccines, Vitamins

A summary of important experiences with commonly used sera and vaccines is offered. Contraindications and dangers are discussed and beneficial effects evaluated. Our present knowledge of vitamins is summarized, its uses and abuses pointed out.

63. Endocrinology in Children

What do we know for sure?
Hypothyroid and hyperthyroid and pituitary disturbances, are carefully presented with lantern slides.
Other endocrine disorders discussed.
The value of endocrine products carefully estimated.

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IX. OPHTHALMOLOGY

64. Inflammatory Lesions of Eye and Conjunctiva

Diagnosis.
Medication.
Mydriatics and silver salts.
Gonorrhea ophthalmia.
Extent to which a general practitioner should limit his care.

65. Defective Vision

More common types, vision tests, refraction; local and constitutional manifestations; conservation methods.

66. Acute Injuries of the Eye

Types.
Foreign bodies—removal precautions.
First aid.
Indicated treatment.

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X. OTOLARYNGOLOGY

67. Foreign Bodies in Nose and Ears: Treatment of Wounds of Eyelids, Nostrils, and Auricles

Penetrating wounds and depressed fractures of nasal sinuses.

68. Acute Otitis Media

Prevention of in acute exanthemata.
Our old friend, phenol-glycerin, when and how to use.

69. Tonsils and Adenoids—Sinuses—Teeth

Present belief as regards their relation to general infections, such as rheumatism, indigestion, chorea, loss of vision, bronchitis, laryngitis, etc.
Operative procedures for tonsils and adenoids:
(a) Control of hemorrhage.
(b) Value of coagulation time and bleeding time.

XI. ORTHOPEDICS

70. Congenital Deformities

71. Acquired Deformities; Curvatures of the Spine, Infantile Paralysis, Nerve Diseases, etc.

72. Arthritis, Acute Infections

73. Arthritis, Nonacute Types

74. Bone Tumors

75. Low Back Pain

76. Osteomyelitis

XII. DERMATOLOGY

77. Acute Inflammatory Skin Lesions

Bacterial infections.
Drugs.
Chemical and vegetable.

78. Blemishes and Chronic Eruptions

Classification and characteristics, treatment and radio therapy indications.

79. Benign and Malignant Lesions

Etiology, classification, diagnosis. Radium and surgical treatment.

80. Syphilitic Lesions of the Skin

Presentation of cases and accepted outline of treatment methods.

81. Skin Manifestations of Constitutional Diseases and Malfunctions

XIII. DISEASES OF METABOLISM

82. Congenital Metabolic Faults

83. Endocrine Dyscrasias

84. Dietary Deficiencies

85. Organ Destruction

Presenting physiological fundamentals, factors, ratio, and tests; dietary and therapeutic treatment.

XIV. GENITO-URINARY AND VENEREAL INFECTIONS

86. Beginning at the Kidney Level

87. Lower Urinary Tract Infections

88. Specific Infections

Nonspecific—presenting etiology, pathology, symptomatology, laboratory examinations, and management.

XV. PROCTOLOGY

89. Practical Points in Conducting Examinations

Positions, examining instruments, preparation of patients, what to look for. Types of lesions and characterization. Biopsies and laboratory aids.

The reasons for complete examinations. The necessity for making examinations in several positions. Technique will be described, illustrated, and demonstrated.

90. Treatment

Fissures, hemorrhoids, prolapse, proctitis, pruritus, rectal crypts, infections.

Accepted treatment will be described and demonstrated. Forms of medication will be presented, and valueless measures and remedies will be discussed. Office and hospital, surgical and nonsurgical treatment, and the type of anesthesia will be outlined and merits evaluated.

91. Cancer and Benign Lesions

Precancerous lesions, polypi and proctitis will be considered. Histopathology and diagnostic characteristics will be demonstrated. Treatment and care will be fully discussed and outlined.

92. Congenital Abnormalities

These will be illustrated and corrective measures outlined.

93. Syphilitic and Other Rectal and Perirectal Infections

Syphilitic lesions will be presented. Abscess, fistula, and cryptitis, and their treatment, will be thoroughly reviewed and practical methods demonstrated.

XVI. DISEASES OF CENTRAL NERVOUS SYSTEM

94. Characterized by Somatic Symptoms

Non-inflammatory.
(*a*) Vascular failures.
(*b*) Neoplasms.
(*c*) Degenerations.

Acute superficial infections.
(*a*) Meningitis, etc.
(*b*) Parenchymatous inflammations (encephalitis, etc.).

95. Characterized by Mental or Emotional Derangement

Psychoses.
Psychoneuroses, etc.

XVII. LABORATORY EQUIPMENT AND TECHNIQUE

96. Essential Equipment for an Office Laboratory

Specifications and necessary equipment will be outlined and demonstrated. Practical use will be shown. Technician aid described.

97. Laboratory Examinations

Blood, metabolism, cultures. Technique, interpretation and pitfalls will be pointed out and demonstrated.

98. Micropathology

Obtaining specimens.
Fixing of specimens (rapid).
Stains.
Microscopes.
Confirmation.
Records and files.

This session will be devoted to practical discussions and technique of pathological diagnostic methods that can be conducted in a practitioner's office.

XVIII. DRUGS, VACCINES, SERUMS

99. Therapy

Each annual presentation will consist of a discussion of conditions in which accepted drugs, vaccines, and serums are recognized to be of value. Preparations, dosage, and administration will be cited. Recent approved and accepted preparations will be described and methods of exhibition in effective dosage will be fully presented.

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XIX. PHYSIOTHERAPY

100. Fever Therapy

101. Diathermy and Other Forms of Electrical Apparatuses

102. Sun, Infra-red, Ultra-violet, Gratz, X-ray, Radium

103. Miscellaneous Physical Agents

Water.
Epsom salts.
Massage.
Exercises.
Colonic flushings, etc.

The New York Academy of Medicine

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JAN 11 '38

MAY 1 '40

JUN 19 '41

JUN 2 '42 Buffalo Sch Med